A Historical Archaeology of the Ottoman Empire

Breaking New Ground

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Edited by

Uzi Baram

New College
University of South Florida
Sarasota, Florida

and

Lynda Carroll

Binghamton, University
State University of New York
Binghamton, New York

Kluwer Academic Publishers
New York, Boston, Dordrecht, London, Moscow

eBook ISBN: 0-306-47182-5
Print ISBN: 0-306-46311-3

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New York, Boston, Dordrecht, London, Moscow

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Contributors

UZI BARAM • Division of Social Sciences, New College of the University of South Florida, Sarasota, Florida 34243

ALLAIRE BRUMFIELD • Department of History, Towson University, Towson, Maryland 21204

LYNDA CARROLL • Department of Anthropology, Binghamton University, SUNY, Binghamton, New York 13902– 6000

PHILIP L. KOHL • Department of Anthropology, Wellesley College, Wellesley, Massachusetts 02481

PETER IAN KUNIHOLM • Aegean Dendrochronology Project, Department of the History of Art and Archaeology, Cornell University, Ithaca, New York 14853

ØYSTEIN S. LABIANCA • Department of Behavioral Sciences, Andrews University, Berrien Springs, Michigan 49104

NEIL ASHER SILBERMAN • Ename Center for Public Archaeology, Beaucarnestraat 17, B-9700 Oudenaarde, Belgium

ALISON B. SNYDER • Department of Architecture, University of Oregon, Eugene, Oregon 97403

CHERYL WARD • Department of General Academics, Texas A&M University at Galveston, PO Box 1675, Galveston, Texas 77553

GHADA ZIADEH-SEELY • Department of Sociology, Old Dominion University, Norfolk, Virginia 23529

Preface

Archaeology has a long and distinguished tradition in the Middle East, but its realm has been limited to uncovering the history and social processes of the distant past. During the late 1980s, a number of scholars, following the lead of post-medieval archaeology in western Europe and Historical Archaeology in North America and coastal Africa, made calls for an archaeology of the recent past of the Middle East. Those calls included improving the discipline of archaeology by testing notions in the material record of the recent past, finding the commonalities in history for national groups that imagined their pasts as separate, and countering the impact of colonialism and imperialism in the region by exposing historical trajectories. The contemporary political situation in the region made it increasingly clear that new bridges to connect the distant past and the present were possible and necessary.

Filling the gap between the contemporary eastern Mediterranean and the archaeological past required archaeologists to confront the history of the Ottoman Empire. The Ottoman Empire, whose rule started in Anatolia in the fourteenth century, controlled at its height the area from Vienna to Mesopotamia and Arabia and across North Africa, and lasted until the First World War. The legacy of this empire for the Middle East and Southeast Europe has left a significant imprint on the lives and relations of people living in this region.

Like others who took up the call for an archaeology of the recent past in the Middle East, a sustained commitment to the history and cultures of the region was the force behind our research. In Baram's case that involved an evaluation of various understandings of the emergence of modernity in Israel, while Carroll's interest centered around the recent past of Anatolia. Our common interests and training in North American historical archaeology provided us with methodological and theoretical frameworks that seemed worthwhile to bring together and develop for the eastern Mediterranean.

We recognized that, although historical archaeology began in North America as the study of European influence and settlement in the post-Columbian era, a growing number of historical archaeologists

were successfully tracing the material record of the modern world for peoples throughout the globe. For us, an archaeology of the Ottoman period became a logical extension of global historical archaeology. However, our understanding of this field was never quite the same as it was for most archaeologists working in North America; for us historical archaeology was never truly juxtaposed against prehistory. After all, in the Middle East, 'history' begins five thousand years ago. More importantly, the Ottoman Empire was an independent polity, not one of the Western European colonies which have come to dominate discussions in global historical archaeology.

Nevertheless, it was in historical archaeology that we were both able to develop our research interests focusing on global and local changes in the material lives of communities in the Middle East over the past 500 years. We are concerned with the relationships between material culture and documentary sources, and have a commitment to understand the lives of the people excluded or ignored in conventional histories (specifically regional histories of ethnic groups separated from changes brought by imperial influences, and Ottoman and global histories which have traditionally examined large scale processes at the expense of local formations). We appreciated the contributions that historical archaeologists brought to our understanding of the history and social life of the last five centuries. Most importantly, we hoped our archaeological approaches would add complexity to the simple caricature of the Ottoman centuries as a deleterious period in world history or a stagnant empire capable of changing only in the presence of Western European expansion.

As an archaeology that focuses on the global movement of goods, power relations, and the emergence of identities, Historical Archaeology should be able to contribute new insights into the Middle Eastern past, particularly in terms of understanding the roots of the present-day. Material remains could provide insights and open avenues for locating common histories for people who have imagined their societies as separate. By tracing the material remains of colonialism and imperialism, the processes of domination and resistance, accommodation and social change can be put into light of a common history. Those anthropological concepts are vitally important in the Middle East and Balkans today, since they address issues that are continually contested and confronted, all too often and sadly with very tragic consequences. But until recently, the material remains from the recent past in the Middle East which could have shed some light on the recent past of this region were simply avoided, ignored, or bulldozed away.

Throughout the 1990s, mostly implicitly and without any sustaining scholarly organization, archaeologists began to face the challenges of an archaeology of the Ottoman Empire, and a wealth of new archaeological materials recovered from excavations were retained for analysis. It became clear to us that the archaeological literature on the Ottoman period was growing, as an increasing number of scholars from a variety of different disciplines, such as history, art history, classics, and geography expanded their examination of the Ottoman period in terms of its material culture. The result was increasing numbers of descriptions of Ottoman artifacts and landscapes, published archaeological reports inclusive of the Ottoman period, and discussions of the socio-politics of archaeology in the region. Yet, the growing research seemed disorganized, and centered mainly around regionally specific issues. The two of us felt that the archaeology of the Ottoman past would benefit from a more comparative approach. To coordinate some of those endeavors, we decided to organize a conference focusing on Ottoman archaeology.

In 1996, we invited several dozen archaeologists, historians, art historians, and other scholars to gather at Binghamton University, State University of New York, to participate in a conference entitled *Breaking New Grounds for an Archaeology of the Ottoman Empire: A Prologue and a Dialogue.* The conference was conceived with one major objective in mind—to open a dialogue about archaeology of the Ottoman Empire. The specific goals of the meeting were to uncover the potential of, and begin to unite, the new field of study, as well as to present and discuss the results of archaeological studies from a wide variety of sites and regions of the former empire. Binghamton University is one of the centers of Ottoman Studies in the United States and the home of *The Braudel Center for the Study of Economies, Historical Systems and Civilizations,* which has encouraged research into the Ottoman Empire's role within global world systems for over two decades. Binghamton University, therefore, provided an opportunity for feedback from Ottoman historians and sociologists.

We were very pleased with the response, both from the scholars who attended the conference and the interest the gathering created. It is becoming increasingly clear that the scholarship on archaeology of the Ottoman Empire needs to be united, and some possible goals of the field made more explicit. This volume is meant to present the findings from a range of projects and approaches and to begin the process of organizing that archaeological research. Our initial goal was to improve contact between and create a dialogue for archaeologists who, like ourselves, have focused on a relatively unexplored time period. In

the process, we hoped to break down some of the barriers which isolated scholars working in various regions throughout the former imperial provinces. The feedback and responses provided results which were far more rewarding than what we initially set out to accomplish. Charles E. Orser, Jr. encouraged us to create this volume, and Eliot Werner and Herman Makler at Kluwer Academic/Plenum Publishers helped us carry it through to completion. We appreciate their patience and support throughout the various phases of this project, since a number of seasons of field work in Turkey and Israel led to delays.

We have been pleased to see interest in an archaeology of the Ottoman Empire develop over the past decade. Yet, despite a growing interest in archaeology of the Ottoman Empire, we still are concerned that this field has yet to find its place in the ranks of more established archaeological research. We hope that this volume demonstrates the potential of archaeological investigations for understanding the recent past of the Middle East, and introduces an archaeology of the Ottoman Empire to a wider scholarly audience. As we discuss in the introduction, there are many avenues for an archaeology of the Ottoman Empire. We envision the volume as an invitation to a dialogue within the field of archaeology on the Ottoman period material record and encourage discussions of the theoretical implications of the case studies, If this volume encourages archaeologists to place the Ottoman period within their preview and consider some of its material remains, we would be satisfied with the endeavor.

UZI BARAM
LYNDA CARROLL

Contents

Part I. Introduction

CHAPTER 1. The Future of the Ottoman Past 3

Uzi Baram and Lynda Carroll

Introducing an Ottoman Archaeology 3
Contexts for an Archaeology of the Ottoman Past 5
The Ottoman Legacy 8
The Archaeology of an Empire 12
Ottoman Archaeology and Global Analysis 13
The Many Paths Toward an Ottoman Archaeology 15
Uncovering the Ottoman Empire 25
The Prologue 25
Acknowledgments 27
References 27

Part II. From Archaeology to a "History from Below"

CHAPTER 2. Agriculture and Rural Settlement in Ottoman Crete, 1669–1898: A Modern Site Survey 37

Allaire Brumfield

Introduction 37
Agriculture in Ottoman Crete 41
A Rural Settlement History 46
The Recent System of Cultivation in the Vrokastro Area 54
Metochia 56
Agricultural Infrastructure 60
Conclusions 69
Acknowledgments 72
References 74

CHAPTER 3 . The Archaeology of Ottoman Ti'innik: An Interdisciplinary Approach 79
Ghada Ziadeh-Seely

Introduction 79
Why Ottoman Archaeology? 80
Political, Theoretical Implications 81
Use of a Multidisciplinary Database. 82
Archaeological Research 84
Breaking New Ground, Problems 85
Conclusion 87
References 88

CHAPTER 4. Dendochronologically Dated Ottoman Monuments 93
Peter Ian Kuniholm

Introduction 93
Discussion of Structures and Their Dates 96
Acknowledgments 133
References 134

CHAPTER 5. Entangled Objects from the Palestinian Past: Archaeological Perspectives for the Ottoman Period, 1500–1900 137
Uzi Baram

Introduction 137
Charting the Terrain: Ottoman Palestine and the Palestinian Past 138
Artifacts of the Modern World 142
Entangled Objects 147
Uncovering the Habits of Modernity 154
Conclusions 155
Acknowledgments 156
References 156

CHAPTER 6. Toward an Archaeology of Non-elite Consumption in Late Ottoman Anatolia 161

Lynda Carroll

Introduction 161
The Relevance of Historical Archaeology for Ottoman Anatolia 162
Consumption as Economic Process 164
Economic Transformation in the Ottoman Empire 166
Ottoman Ceramic 'Traditions' 170
Conclusions 175
Acknowledgments 176
References 177

Part III. Trade, Subsistence. and Ideology in the Ottoman Empire

CHAPTER 7. The Sadana Island Shipwreck: A Mideighteenth-Century Treasure Trove 185

Cheryl Ward

The Shipwreck 185
The Hull 198
Conclusions 199
Acknowledgments 200
References 201

CHAPTER 8. Daily Life in the Shadow of Empire: A Food Systems Approach to the Archaeology of the Ottoman Period 203

Øystein S. LaBianca

Introduction 203
What Is Meant by a Food Systems Approach? 204
Can We Speak of an Imperial Ottoman Food System? 206
Can We Speak of Indigenous Resistance to Imperial Interventions? 209
Human-Environment Interactions 212
The Relevance of Ottoman Archaeology 213
Acknowledgments 215
References 216

CHAPTER 9. Transformations, Readings and Visions of the Ottoman Mosque 219

Alison B. Snyder

Introduction 219
Documentation and Study 225
Mosque Forms and Lighting Types: A Vocabulary 225
Conclusion 238
Acknowledgments 239
References 239

Part IV. Prospects

CHAPTER 10. Sultans, Merchants, and Minorities: The Challenge of Historical Archaeology in the Modern Middle East 243

Neil Asher Silberman

Acknowledgments 250
References 250

CHAPTER 11. Diverse Approaches to the Ottoman Past: Toward a Globally Conceived, Regionally Specific Historical Archaeology 253

Philip L. Kohl

References 260

Appendix A: Chronology for the Ottoman Empire: Some Key Dates in Ottoman History, 1260-1923 261

Index 265

INTRODUCTION | I

1 The Future of the Ottoman Past

Uzi Baram and Lynda Carroll

INTRODUCING AN OTTOMAN ARCHAEOLOGY

From the fourteenth century, until its demise in the early twentieth century, the Ottoman Empire was one of the world's great empires. Stretching from the regions now known as Croatia and Romania, to Iraq and Yemen, and across much of North Africa, this empire had a significant influence on world history, and more significantly, on the history and peoples of the Middle East and Balkans in general.

Yet, based on the narratives archaeologists tell about this region, one would hardly notice that the Ottoman Empire ever existed. While archaeologists tell grand and glorious stories of this region's past, few have taken the opportunity to explore the Ottoman period. Instead, the archaeological narratives of this region tell of prehistoric achievements of humanity and of the rise of agriculture and settlements. We have a good understanding of the great cities of the Bronze Age and of the empires of the Iron Age, as well as the Classical civilizations of Greece, Rome, and Byzantium. Some archaeologists even examine the early history of Islam in this region. But just as we begin to reach the doorstep of the present, archaeological insights—and research—trail off.

The fact that there has been little sustained archaeological interest in the recent past of the Middle East is due, not to a lack of material remains, but to ideological blinders to what constitutes an archaeological past, and what its relevance could be. There are, after all, very clear and firmly entrenched ideologies of what constitutes an

UZI BARAM • Division of Social Sciences, New College of the University of South Florida, Sarasota, Florida 33620. LYNDA CARROLL • Department of Anthropology, Binghamton University, SUNY, Binghamton, New York 13902.

A Historical Archaeology of the Ottoman Empire: Breaking New Ground, edited by Uzi Baram and Lynda Carroll. Kluwer Academic / Plenum Publishers, New York, 2000.

archaeological period in the Middle East. Archaeology in this region has a long tradition of being the search for a distant, romantic past—a past comprised of golden ages, and heralded as the birthplace of civilization. Few archaeologists have romanticized about the Ottoman period. Few consider the Ottoman period to be a golden age worthy of sustained research. This is a major boundary which has to be crossed as we break new grounds and move toward an archaeology of the Ottoman Empire.

Archaeologies of the recent past have proven to be quite successful in other parts of the world, such as historical archaeology in North America and post-medieval archaeology in Great Britain. Yet, the recent past of the Middle East, North Africa, and the Balkans is still considered irrelevant for archaeologists. The archaeological past in this region is, after all, more often than not, separated chronologically as well as culturally from the Middle East of today. The result has been the construction of an artificial barrier separating the past and the present.

In spite of—or perhaps in reaction to—these boundaries, a growing number of archaeologists, archaeological commentators, art historians and historians have actively argued for, advocated and aided in the development of an Ottoman archaeology over the past two decades (e.g., Glock 1985; Kohl 1989; Silberman 1989; Baram 1996; Orser 1996:194–198; Seeden 1990). Some scholars have called for filling in the gap which separates the past and the present (e.g., Silberman 1989), since for the most part, the peoples of this region often believe that they have separate and competing pasts. Others challenge the notion of a stagnant, passive, unchanging Ottoman period (Baram 1996) and envision in this archaeology a challenge to a history of colonialism and imperialism (Kohl 1989). Others have hoped to use the archaeology of the recent past to understand the historical development of the modern Middle East (e.g., Davis 1991; Seeden 1990; Ziadeh-Seely 1995). Many scholars have, after uncovering Ottoman components in multi-component sites, found the artifacts of the Ottoman period important enough to describe and typologize (e.g., Aslanapa *et al.* 1989; Robinson 1983,1985; Hayes 1992; Baram 1995). Some include this time period in their analyses and interpretations of archaeological places (e.g., Foss 1976, 1979; Toombs 1985; Brown 1992). Whatever the motive, it is clear that since the 1980s, the number of archaeological studies focusing on remains which date from the Ottoman period has been growing, complimenting an earlier corpus of archaeological materials (e.g., Wiegand 1925; Riis and Poulsen 1957).

CONTEXTS FOR AN ARCHAEOLOGY OF THE OTTOMAN PAST

The boundaries isolating the Ottoman period from the archaeological past are not solely temporal, but also geographical and intellectual. But what are these obstacles which have prevented the development of the field of Ottoman archaeology? Certainly, Ottoman period sites can be found scattered across the landscapes of the eastern Mediterranean. Archaeologists often encounter the Ottoman period deposits on sites, if only by necessity as they delve deeper into the archaeological record.

The greatest—and most challenging—obstacle which must be overcome in the creation of this field are the attitudes which archaeologists have toward the Ottoman period. In addition, archaeologies of the Ottoman past will no doubt be influenced by the various meanings this period has for the people who live in the empire's former dominions. In both cases, the Ottoman period has remained an unpopular period for archaeological study.

The unpopularity of the Ottoman Empire stems largely from the perception that its growth marked a deleterious period in world history. This view is propogated both by Western scholars and by people living in the regions once ruled by the Ottomans. The Ottoman Empire is often considered to have been a period of 'decline and decay' from antiquity, as the empire began to lose much of its wealth, centralized power and prominence on a global scale (e.g., Gibb and Bowen 1962; Inalcik 1973; Kinross 1977; Palmer 1992) starting in the late sixteenth century. European powers referred to the empire as 'The Sick Man of Europe.' While the meanings of this period of the Ottoman Empire has been widely debated (e.g., Abou-el-Haj 1991, Kafadar 1995), it is not coincidental that these images of decline and decay fit nicely into the concepts of progress and Western triumph which characterize much of modern Western thought and scholarship, including archaeology.

A broadly defined 'Western Tradition' was built in the eighteenth and nineteenth centuries on what were considered to be classical foundations, and were based almost exclusively on the connections to a Biblical past, or Hellenism and neo-classical revivals. Any traces of the present—of an Ottoman present—were considered 'annoying and debasing the illustrious ancient tradition' (Todorova 1996:45). The regions touched or ruled by the Ottoman Empire located in the margins of Europe (e.g., Herzfeld 1987:1–27), were considered to be polluted by centuries of Ottoman rule. At the same time, by

emphasizing the classical civilizations of deep antiquity, archaeologists help to reinforce this ideology. Neglecting or ignoring an unpopular Ottoman period, Ottoman landscapes are more often than not presented as devastated, empty or abandoned during the Ottoman period. These judgements provided the ancient past with a more preferable place in history books; perusing an archaeology of a glorious, ancient past was a more desirable endeavor than developing the archaeology of a despised one. This remains largely the case today.

Perhaps even more importantly, archaeology in this region is deeply embedded within contemporary political ideologies. Today, many of the artifacts, monuments, sites and even cultural legacies are seen as symbols of the power politics of an unpopular Ottoman past, and therefore evoke unpopular memories for many groups in this region. The distant past, often examined through archaeology, is highly romanticized, and understood as a past of heroic ancestors, existing before the time of the Ottoman Empire. Much of the archaeological research in the Middle East and the Balkans is supposedly aimed at tracing the development of groups of peoples living today. However, the foundations for ethnic and national identities in this region are presented as lying mainly in an ancient past (e.g., Kohl and Fawcett 1995; Silberman 1989). As a result, the more recent past is deemed separate and disconnected from the present. In this process, geo-political boundaries and tensions of the present obscure the many common experiences of people living under the dominions of one empire. Those common experiences, which negate nationalistic calls for separations, more often than not influence a perception of the Ottoman past as a negative era for a place or people.

At its height in the mid-sixteenth century, the Ottoman empire stretched north from the Balkans and south to the Arabian peninsula, encompassing much of North Africa (see Figure 1.1). The empire brought a vast variety of people under its dominion, and was comprised of many different religious, linguistic and ethnic groups, which at dif-ferent times and places lived side by side with one another, all as Ottoman subjects. Many groups—organized mainly around and administered through religious communities (known in the nineteenth century as *millets*)—enjoyed relative independence, and for centuries retained their own languages, and religious and cultural practices (e.g., Itzkowitz 1996:37–38; Rustow 1996:250). These groups, however, did not live in isolation of one another. Religious conversions occurred, and linguistic boundaries were often not nearly as clearly defined as they appear to be in modern nation-states.

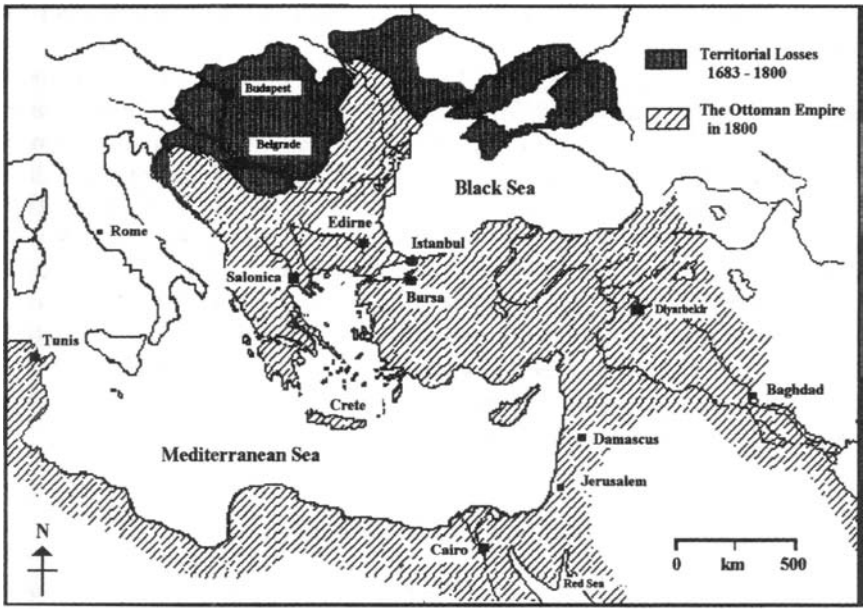

Figure 1.1. The Ottoman Empire in 1800, showing its territorial losses between 1683 and 1800.

However, throughout the nineteenth century, and especially after the fragmentation of the empire in the early twentieth century, groups began to understand their identities differently. Ethnic, linguistic, and religious affiliations were often collapsed, renegotiated, or redefined. In many cases, these identities were transformed into national identities organized around the modern nation-state. Regarded as a period of imperial rule, the Ottoman past became reconceptualized as a period of 'detested alien domination' (Brown 1996:5).

The creation of national identities were, for the most part, based on the idea of common roots of people living within these locales which were created in antiquity, and not in the recent past. The use of the distant archaeological past is therefore a powerful tool to build nationalism and/or ethnic identities, and can help secure these perceptions of the past, whether they are positive or negative. For much of the twentieth century, this simple observation helps to understand the lack of sustained archaeological research into the Ottoman centuries. And in each contemporary nation-state in which these archaeological sites can be found, the potential for an Ottoman archaeology is

therefore firmly entrenched within the various meanings ascribed to the Ottoman past.

Although it is obvious that modern national borders do not necessarily delineate any past landscapes, in the case of the recent past this can not be stressed enough. This goal, however, relies on assumptions of primordialism. The primordial approach assumes present-day ethnic identities and geopolitical borders have radiated from the distant past. The antiquity of ethnicities and even nationalities are essentialized, grounded in peoplehood, and used as a given, objective fact to be assumed at the beginning of any analysis. This reductionism removes complexity from people's identities and creates a fixed boundary or border between peoples. These divisions, created in the relatively recent past, are difficult to transcend, especially considering the unpopularity of the Ottoman past.

THE OTTOMAN LEGACY

United by a common past under Ottoman rule, all of the former Ottoman provinces can lay claim to an Ottoman legacy. However, few do. The one major exception is the Republic of Turkey; whether they want to or not, Turks have inherited the legacy of a past which is mostly unpopular, since Turkey is considered by many to be the successor state to the Empire (Brown 1996:5).

Indeed, Western scholars, commentators, and travelers alike often referred to the multireligious, multiethnic, and multilingual Ottoman Empire simply as 'Turkey' (Brown 1996:5). The Ottoman state was established by the late thirteenth century in Anatolia as the migrations of nomadic Turkic tribes from central Asia brought these people to western Asia Minor. But as it expanded, the Ottoman empire included many different groups of people. Some of them converted, and some were conscripted into the service of the state. The resulting mixture was a Muslim administrative and ruling elite — serving the state and Islam, and using the Ottoman language — which was a mix of Persian, Arabic and Turkish. These elites—and only these elites — are considered to be Ottomans (e.g., Itzkowitz 1996:31).

However there are many, often conflicting meanings for the Ottoman Empire in Turkey. The Republic of Turkey became a nation-state in 1923, and its formation was based largely on state ideologies which rejected the Ottoman past (Sterling 1993:2–3). Over 70 years later, many Turks do not wish to study an Ottoman past — through archaeology, history, or by any other means. For many, the Ottoman

period symbolizes an unprogressive, stagnant period of Turkish history, put aside and forgotten after the formation of the Republic in 1923. Many Turks do not even feel that they can trace their roots back to the Ottomans. Many look to an Anatolian peasantry—and not an Ottoman elite culture—to find their heritage.

There are exceptions. Some Turks (and others) consider the "height" of the Ottoman period to be a glorious past of a great Turkish Empire (Brown 1996:5). Growing appreciation for the many historical monuments in Turkey (as well as in the former Ottoman provinces) by art and architectural historians in Turkey is a testimony to Turkish pride in some aspects of an Ottoman past (see for example Yenisehirlioglu 1989). Whether the Ottoman Empire is understood as a great Islamic Empire or a great Turkish Empire, this potentially has additional meanings for Turks participating in contemporary cultural and religious revivals in Turkey.

While people in the Republic of Turkey often have conflicting attitudes towards the Ottoman period, in another areas, perceptions of the Ottoman centuries are more resolute. In Israel, the Ottoman years are often described as inconsequential. Historically, Ottoman Palestine was often described by travelers as desolate and by local historians as suffering under the Turkish yoke. Many of these studies either state or imply a stasis for the four centuries of Ottoman rule, and a period of a decline from glorious ancient heights, to a period of no internal innovation. The Ottoman centuries are contrasted with the glories of Roman era construction and legendary stories of great kings and conquests. As the Holy Land for the great monotheistic religions, there are accounts which stretch through the Ottoman period which describe the expectations of travelers against the extant landscape (examples include Mark Twain, Ernest Hemingway, among many others; for the critique of the Orientalist literature, see Said 1979). Those views have structured notions for the ranking of this land's history. The Ottoman period landscape is assumed to be empty. When the Ottoman centuries are considered within an historical light, the people of Ottoman Palestine are seen, first, as passive victims of the Ottoman Turks and, later victims of the West—or in the idiom of world-system theorists, victims of capitalist penetration.

Even in the few attempts to include the Ottoman period within the broad archaeological history for the region (e.g., Levy 1995), studies of the Ottoman period sit uncomfortably with the Bronze and Iron Ages. For several generations of archaeologists, the artifacts and architecture of the four century long Ottoman period in that region were often avoided, ignored, or bulldozed away. As the study of the

distant past, archaeology in Israel supports the agenda of a Biblical Archaeology. Attempts to incorporate spatial and material information from the Ottoman period face disciplinary assumptions about the character of archaeology.

The disciplinary issues intersect with the nationalist appropriation of the Ottoman period landscape. Thus one of the most famous symbols of Jerusalem is the walls around the old city, especially the fortification known as the Tower of David. Neither the Tower of David nor those walls are Biblical in their construction. The walls were built in the mid-1500s by order of Süleyman the Magnificent. The most obvious evidence of the Ottoman past in Jerusalem is appropriated and made more ancient to satisfy the needs of the city's present owners.

Many questions remain for archaeological research in Israel. For example, should the archaeology of this modern period keep the agenda of Biblical Archaeology? Can the study of a modern empire use the tools and analyzes from the deeper past?

In other places, such as the Balkans, open hostility to the memory of Ottoman rule is quite clear. The result has been an attempt to separate and isolate 'indigenous' (and therefore ancient) local traditions from foreign, Muslim, Ottoman influences (Todorova 1996:47). This requires ethnic separation and assumes ethnic characters are unchanging through time. A notion of stasis for the Ottoman centuries is a useful tool for that goal, and characterizes much of the historiography of the region. For example, in his work, *Balkan Worlds: The First and Last Europe,* Stoianovich (1994:20) argues for a permanence of a primordial Balkan culture which can be traced back to Neolithic times. The Ottoman centuries may have separated a Balkan past from the present, but both a Balkan past and present are assumed to be essentially the same.

A prominent example of this process is Bosnia. The 1990s war in the realm of the former Yugoslavia was predicated on ethnic primordialism. The notion of primordialism assumes that identity—and therefore associations with places—are fixed and eternal. This provided enough justification for Christian Serbian forces to remove the last lingering remnants of Ottoman rule. The destruction of the Mostar Bridge, the Saravejo Library, and other historical monuments was only one—albeit symbolic—omponent of a war against a multi-ethnic and dynamic past in that region. The targeting and massacre of Muslim populations in Bosnia during the war was an even more tragic one (e.g., Rusinow 1996; Sells 1996).

Complex and contradicting meanings of the Ottoman past are played out in different ways in each of the successor states to the Ottoman Empire. The material remains of the period intersect with local histories in similarly divergent manners; while goods and people circulated throughout the many provinces of the Ottoman Empire, archaeologists today are faced with different boundaries and obstacles presented by competing nation-states, or in consideration of ethnic conflicts and rivalries, different languages and different modes of scholarship. In this context, a call for archaeological investigations of the Ottoman period moves not only among theoretical concerns from anthropology and history, and methodological issues in archaeology, but also among ideological issues.

We want to challenge the priorities of archaeologists in the Middle East. In worst case scenarios, Ottoman period artifacts have been destroyed in the process of development, or other archaeological endeavors. Even when these samples are examined, however, remains from the Ottoman period are most often treated as afterthoughts, as the recent deposits on otherwise thoroughly examined sites.

A re-examination of the long term historical development of the Middle East can only be attempted by de-romanticizing the archaeological study of the past, by filling in the gap between the distant past and the present, and by examining the Ottoman past as one would examine other sites. However, does a call for archaeology of the Ottoman period mean that archaeologists should simply begin to survey and excavate Ottoman period sites, with little discussion of its relevance? Does the inclusion of the Ottoman period on its own necessarily make for better understandings of the past?

We should not assume that inclusion alone will in anyway challenge existing understandings of the Ottoman past; it is possible that an archaeology of the Ottoman period will do little more than simply extend the range of time periods which archaeologists study. Conducted in isolation from one another in a vast variety of contemporary nation-states, archaeologies of the Ottoman period may only help to fuel the arsenal of identity building which already exists. After all, archaeology can be used to support existing perceptions of the past as easily as it can challenge them. Descriptions of local histories can easily be explained as the fading legacies of glorious pasts characterizing classical antiquity.

The goals of archaeology in the region must be reconceptualized for an archaeology of the Ottoman Empire to be successful.

THE ARCHAEOLOGY OF AN EMPIRE

Archaeologies of the Ottoman period do exist. The extant corpus of publications is a credit to scholars willing to excavate, analyze, and commit to publish about these materials despite the lack of a systematic framework for scholarly discussions. A growing number of studies have successfully shown the archaeological community the potential Ottoman components of archaeological sites can have for understanding long term developments of a region (see, for examples, Aslanapa *et al.* [1989] for the Iznik excavations; Foss [1976], [1979] for Sardis and Ephesus; Hayes, [1992] for Saraçhane in Istanbul; Johns *et al.,* [1989] for Jordan; Preziosi [1989] for Crete; Toombs [1985] and Eakins [1993] for Tel el-Hesi). These studies have, each in their own way, introduced the material world of the Ottoman period to archaeology,

However, what can really become of an archaeology of the Ottoman period? Are we simply concerned with a chronological designation? We argue that this cannot be. First, and foremost, Ottoman archaeology is not simply the archaeology of the Ottoman period, but an archaeology of the Ottoman Empire.

The difference between an Ottoman period archaeology and an Ottoman archaeology is subtle, but essential. The first definition implies an archaeology which examines people living during a specific time period. These studies are mostly exclusive and limited to areas defined by contemporary geo-political boundaries. This is not to suggest that local histories be ignored, nor that archaeologists solely use the empire as their unit of analysis. Instead, an archaeology of an empire provides crucial information about the local histones and social developments of the empire, in what Sinopoli (1994:169) calls the material consequences of an empire. An archaeology of the Ottoman empire is far more inclusive, since it provides a political economic context to our studies. In this way, we can begin to understand the workings of the empire as an integral part of the development of local histories, and the links between localities and an Ottoman imperial administration. But also, we can examine social action on the local level as a part of the development of the empire, to be compared and contrasted with other regions. An archaeology of the Ottoman Empire links local and imperial histories in dynamic relationships.

Reconceptualizing an Ottoman archaeology as an archaeology of an empire at first may seem daunting. However, only by visualizing Ottoman archaeology as an archaeology of an empire can we deal with many of the problems which archaeologists face in this field.

According to Sinopoli (1995:4), the challenges of conducting archaeologies of empires include issues of scale, internal variability, and the need for collaborative, interdisciplinary efforts between scholars in various fields. This, of course, also applies to the Ottoman case. In this case, archaeologies of local histones can be transformed from nationalistic rhetorics professing primordial origins, to an study of an empire and local variability. However, archaeologies disarticulated from the context of an Ottoman Empire can be integrated within the larger context of Middle Eastern and Ottoman studies by reconceptualizing the Ottoman Empire as a world empire, and to appreciate the global nature of this empire. In order to do this, we must turn to some recent debates in Ottoman studies.

OTTOMAN ARCHAEOLOGY AND GLOBAL ANALYSES

Much of the recent scholarship on the Ottoman Empire's place in the world owes its ontology to Immanuel Wallerstein and a world systems approach. In a series of publications (Wallerstein 1974, 1980, 1989), Wallerstein unveiled the notion of spatial inequalities for conceptualizing this development of the modern world system. Wallerstein posits the development of the modern world system in the aftermath of the Columbian voyages, with the linking of the Old and New Worlds, and provides a framework for viewing historical events and social processes not as unique and separate but as globally integrated. The interactions are not simple; from the sixteenth century onward, these interactions are driven by a powerful and ruthless core in western Europe, acting against other regions. The peripheral regions are in the Americas, Africa, and Asia.

One aspect of this socio-historical investigation into the modern world system produced an agenda for the study of the Ottoman Empire (Islamoğlu and Keyder 1977). The study of the Ottoman Empire offered challenges for a global framework; the Ottoman Empire was its own world Empire, and thus cannot be conceptualized in the same way as other regions which were part of European colonization efforts. The Empire always maintained its political autonomy, even when economically it became, according to world systems theorists, a semi-peripheral region.

Kasaba (1988) provides several definitions for the use of world systems theory in Ottoman studies. Within the world system, according to Kasaba (1988:6):

> The incorporation of the Ottoman Empire was achieved mainly through the mediation of trading activities that linked the sites of agricultural production in, especially, the Balkans and Western Anatolia with the process of production and/or household consumption elsewhere in the world economy, especially in core areas.

Incorporation, for the world system theorist, involves two stages. First, there must be links established between local production processes and the larger scaled capitalist world economy. Then, that region's political structures must be integrated into 'the interstate network of the world system' (Kasaba 1988:4). Beginning in the mid-eighteenth century, but then escalating throughout the early twentieth century, the Ottoman Empire was positioned as subordinate to the economic power of an industrial, Western European core. Provinces in the Balkans and Western Anatolia, in particular, became the suppliers of raw materials and cheap labor for the west. And while the empire began to loosen its political integrity during the nineteenth century—losing provinces to nationalistic movements and imperialism—the Empire continued to maintain its political independence.

The world system approach has allowed exploration of both the events and processes of the last several centuries in the region within a global framework (e.g., Marcus 1989; Masters 1988). In addition, the world systems approach provides two contributions for an archaeology of the Ottoman Empire. The first is an appreciation of the large scale political economic history of the empire. The second contribution, likewise, is its global approach, as it examines historical spatial inequalities, social interactions on a global scale, and examinations of economic power differentials and political economic geography. This is crucial for any understanding of the context of material events and processes for the region. Therefore, an archaeology of the Ottoman Empire which examines the region as a geo-political isolate would do disservice to understandings of the social processes of the Ottoman centuries. Some of the valuable components of this approach include its foci on spatial networks, the perception of global power relations, and the concern for large scale social processes which are illuminated.

However, one of the great strengths of using archaeology is its local level focus on small portions of past landscapes. While we hope that local regions and sites of the Ottoman past can be contextualized within their the global processes of change that mark the modern period, conceptualizing the Ottoman past on various scales of analysis should be a priority.

There are major critiques of a world systems theory (e.g., J. Abu-Lughod 1989; Asad 1987; Wolf 1982); for example, examining the

Ottoman Empire only on the global level does not allow us to look at any internal dynamics involved in the processes of change. As Faroqhi (1984:8) notes,

> Underlying much social history relating to the Ottoman Empire we find the assumption that the Ottoman social system changed little if at all in the course of the centuries, except where European intervention disturbed its functioning.

This, of course, is tied into the second critique of this approach—that world systems analyses is plagued by an implied Eurocentrism. World systems theory places interactions among regions in the center of social science analysis, and then primarily examines 'the west' and 'the rest.'

We take these critiques seriously. While it is tempting to simply attribute economic transformations on a powerful global capitalist economy, it is also essential to look at how the expansion of capitalism interacted with individual groups or communities. Economic transformations did not affect all groups the same way. Studies should therefore also say something about real people or local communities, their actions, and how they interact with different political economies; while actions are connected to global processes and a larger world system, we should not subsume local histories in global processes, but instead try to examine anthropological subjects (Roseberry 1988).

Ultimately, the relationship and dialogue between a global economic structure and specific local developments may be better understood as 'entanglements,' through which collective and individual action led to the intertwining of local groups with global capitalism. Archaeologists are well suited to address some issues of changes, at the most local of levels. If successful, archaeologists can help bridge the gap between local changes and their larger political economic contexts.

THE MANY PATHS TOWARD AN OTTOMAN ARCHAEOLOGY

The field we are conceptualizing is unlike any other. We find Ottoman archaeology positioned, somewhat vaguely, between the boundaries of Middle Eastern archaeology, broadly defined Ottoman or Middle Eastern studies, and global historical archaeology. In North America, many archaeologists are affiliated with anthropology departments, whereas many European archaeologists find their homes in

history departments. Archaeologists can also be found in classical studies programs, and art history departments. Unfortunately, archaeological studies in the Middle East tend to reflect a tension between these different approaches, but dependent on their training, archaeologists can approach the topic through a wide variety of disciplines. It is still unclear whether Ottoman archaeology can help build the crossroads of new and innovative ways of conceptualizing the recent past in this region, or potentially be caught in the crossfire between these disciplinary boundaries.

We hope that a community of Ottoman archaeologists would not be split by those disciplinary tensions. More importantly, we acknowledge that there are many paths towards an archaeology of the Ottoman Empire, along which there is much room for theoretical and methodological maneuvering. Although these are not the only alternatives, an Ottoman archaeology can be envisioned as borrowing and expanding on:

- global historical archaeology
- the archaeology of Islam
- Middle Eastern Studies
- ethnoarchaeology
- critical analyses of the present

These categories are quite fluid for understanding an Ottoman archaeology, and we expect and encourage overlap between them.

Ottoman Archaeology as Historical Archaeology

In North America, a growing group of anthropologically trained archaeologists continue to study the recent past through historical archaeology. Glock (1985), for a prominent example, called for an historical archaeology for the Middle East; in that case, he refereed mainly to the methodologies for combining archaeological remains and documentaries sources. Glock used the straight-forward definition of historical archaeology as text-aided archaeology (i.e., the archaeological research of periods in which documents exist). We, however, refer to historical archaeology as it is practiced in North America—meaning the archaeological study of the recent past. Historical archaeology as a study of the recent past can help to separate an historical archaeology of the Ottoman centuries from the earlier, but similarly historical epochs of the Middle East.

Historical archaeology has primarily been a North American endeavor and uses the advent of the ‘modern’ era—the explorations

and conquests of Western Europeans starting in the 1400s—as its benchmark (e.g., Deetz 1977, Leone and Potter 1988). In Western and Central Europe, a similar approach is post-medieval archaeology (e.g., Hodges and Whitehouse 1983). In all of these areas, the recent past has been examined mainly as the archaeology of the spread of Western European influence. As a departure, however, global historical archaeology is now practiced internationally, for example in Africa (e.g., Posnansky and DeCorse 1986; Hall 1993), eastern Asia (Junker *et al.* 1994), and Australia (Connah 1988).

As the archaeology of Western European spread and influence around the world (e.g., Deetz 1977), an historical archaeology of the Ottoman Empire might look for evidence of Westernization and modernization in the region. For the land that is today Israel, archaeological investigations of European settlements (German Templars in Jaffa and Haifa, the American Colonies in Jaffa and Jerusalem, and the Jewish settlements sponsored by the Baron Rothschild) would fit under that rubric. In Egypt, the concerns might revolve around the archaeological evidence of Napoleon's military, then the British, in that land. Across the region, archaeologists could examine in detail the presence of British manufactured ceramics which would indicate Western European influences: the penetration in the markets of the Middle East and the falling out of favor of locally produced wares. Among the sultan's treasures, a ceramic with the name of Abraham Lincoln (Rogers 1996:190–191) clearly opens up issues of the permeability of national and cultural boundaries and the meanings of material culture.

Along similar lines, an Ottoman archaeology can be understood as an archaeology of capitalism (e.g., Johnson 1996; Leone 1995; Paynter 1988). Paynter (1988) has argued that historical archaeology needs to broaden its focus, from studying Europeans and their influences to employing class analytics for the study of the emergence and spread of capitalism in the post sixteenth century world. The sixteenth century is the benchmark for studying and understanding the production, distribution, and consumption found in capitalist social formations. Paynter (1988) focuses on the patterns of change in glass bottles in the United States; Johnson (1996) examines changes in architecture in England. Efforts to use those analytics to understand patterns of change in the material world in the Ottoman Empire are seen in the chapters by Baram (this volume) and Carroll (this volume).

Taking historical archaeology from North America can be just another exercise in intellectual imperialism. Silberman (this volume) sees in Ottoman archaeology the possibility of rethinking historical

archaeology (see also Orser 1996), to use the subfield to cross boundaries in the contemporary world, and ultimately, to rethink our conceptualization of the modern world. Historical archaeology with the inclusion of Ottoman archaeology would be a different subfield, one more global in perspective than most current approaches.

Since the Ottoman Empire is the precursor to the nation-states of the eastern Mediterranean, understandings of its material remains intersect with the heritage of each of those countries. Across the region, there are debates about the emergence of the present (and there are plentiful scholarly debates on the rise of capitalism and modernity). Ottoman archaeology as historical archaeology would be involved in those cross-currents even while it provided data from the material record.

While the focus on Western European influence on the Ottoman Empire has potential for understanding modernization and Westernization in the region, there is once again a clear bias to this approach. Historical archaeology, for the most part, examines the intersection of Western Europeans and non-western and native peoples. More importantly, it examines the development of European colonies, the dominance of Western Europe over native peoples, and the development of western European capitalism.

A historical archaeology of the Ottoman Empire however, does not necessarily have to place the Ottoman Empire—rulers and subjects alike—into passive positions in the face of Western European propelled transformations. Although Western Europe ultimately did gain global hegemony, it was only at the end of the empire that its history was sealed. Local and regional transformations in the Ottoman empire do not need to be placed into the shadows of history; during the long centuries of Ottoman imperial rule, the Ottoman Empire's role in history was not simply one of a victim, but rather a major player.

Ottoman Archaeology as an Archaeology of Islam

An archaeology of the recent past in the Middle East can be examined from an alternative perspective, specifically through an archaeology of Islam; several archaeologists have noted the importance of an Islamic archaeology (e.g., Grabar 1971; Insoll 1999). Islam was, and continues to be, one of the world's major religions. A religion-based archaeology in the eastern Mediterranean could follow the pathways created by both Biblical and New Testament archaeologies. In addition, the Islamic world has historically and philosophically been connected, (if not always united) to many regions throughout the Middle

East, Africa, and Asia, as well as other parts of the globe. The Islamic world was (and is) a world-system in its own right, including an extensive network of sociopolitical and economic connections, including histories of ethnic and religious interactions.

However, Islam itself is not a culture, and therefore, it would be inappropriate for archaeologists to examine the Islamic period as one unified entity (Grabar 1971:197); there is great cultural variation throughout the Islamic world, both spatially and temporally. The Ottoman Empire was only the last of its empires, and the Ottoman period was one regional manifestation within the Islamic world. The archaeological study of the material culture used by a wide variety of people during the 600 year Ottoman phase of the Islamic period can help in the examination of the history and workings of a larger scaled Islamic world.

Much of the archaeology of Islamic periods examines the material culture and monuments associated with elites of the Islamic world. The same is true for the Ottoman period. This focus is often made to illustrate fine examples of the Ottoman tradition, in an attempt to show its contributions to history. In this volume, Snyder explores the material world of one type of major religious structure, specifically the Ottoman mosque (*cami*) in Turkey. While others have mapped out the religious architecture in Ottoman urban centers, such as Istanbul, Jerusalem, and other cities of the imperial realm (e.g., Aslanapa 1986; Yenisehirlioglu 1989), Snyder looks at the meaning behind material world in terms of ideological understandings and time over time. Just as an archaeologist is concerned with the use of space, she looks at how space and light are entangled and provide meaning for the people who used the mosque and the uses of the material world for ideological purposes. By examining a living tradition, Snyder brings together the extant physical landscape with a concern for diachronic transitions.

By focusing on Islam, Ottoman archaeologists can examine the social history through ideological frameworks, belief systems, and worldviews which come from sacred teachings of the Quran. This will allow archaeologists to work with ideological models describing how people were expected to live. On the other hand, archaeology can illustrate how people really lived, and whether the material remains fit within that model. This will allow archaeology to expand on the relationship between ideas and the physical world (Grabar 1971:198).

One example is the presence of intoxicating stimuli in the archaeological record. The Quran is explicit about avoiding such things

that muddle the mind. The presence of naghiles, tobacco pipes, and coffee cups raises issues for the practice of the people during the Ottoman centuries (see Baram 1996; also Rosenthal 1977; Hattox 1985). Court documents reveal the debates about the use of these objects and commodities; the archaeology of Ottoman Islam provides insights into the differences between ideological models of how people should live versus their actual lives, as well as the tensions and changes caused by entanglements of material worlds within the past several centuries.

Ottoman Archaeology as Middle Eastern Studies

As a new endeavor in historical and social scientific inquiry, an Ottoman archaeology must use several established disciplinary and interdisciplinary platforms, based in Middle Eastern studies or Ottoman studies; a vast literature exists for Ottoman archaeologists to explore both Ottoman history and modern Middle Eastern studies (but see Inalcik and Quataert 1996). However, major disciplinary boundaries still separate most archaeologists from scholars in Islamic or Middle Eastern studies departments. This is true especially in the United States, where anthropological archaeologists are more often than not associated with prehistoric archaeology, and classical archaeologists working in the Near East focus primarily on pre-Islamic sites. However, few Ottoman archaeologists have presented their work to a larger Ottomanist audience. On the other hand, few Ottomanists consider archaeology as anything more than filling in the details of an archival based history.

Our major goal is to create an increased awareness of historical trends using a variety of methods, including archaeology. We hope that Ottomanists can learn about the potential of archaeological method and theory. We expect to find the greatest potential for Ottoman archaeology in the intersection of the rich historical record with material remains. In a dialogue, they can both illuminate and even contradict our current understanding of this empire, time period, and region.

We hope that archaeology will create a dialogue with these regional studies. Evidence of daily life—especially non-elite, rural life in the shadow of the empire—can come from the material world as well as the archives. LaBianca (this volume) illustrates this by examining the changes in foodways in Transjordan. The current focus in Ottoman studies on the political, economic, and social history of the empire allows a good fit with archaeological interpretations of

material remains from the Ottoman period (e.g., Faroqhi 1984; Islamoğlu and Keyder 1977; Kasaba 1988; Marcus 1989; Masters 1988; Owen 1981; Quataert 1983).

In addition, Ottoman archaeology could bring to light the people excluded from or invisible to traditional historiographies in this region (Carroll, this volume). Braudel called the Ottoman Empire 'a major historiographical problem, a zone of formidable uncertainty' (1972: 13) Part of that uncertainty comes from being in a Mediterranean which speaks with many voices. In the present century, many of those voices have competed to construct histories to either claim a singular heritage for their ancestral land, or record the lives of only some groups of people. Rather than focusing solely on the heritage of the Ottoman elite, in an Ottoman archaeology we potentially can find a new methodology to focus on the lives of women as well as the men of the past; the lower as well as the upper classes; ethnic and religious groups; the urban poor; the peasantry; and the nomads. Rather than contribute to the silencing of voices, archaeology could provide insights into the people and social processes of the last several centuries. We follow those archaeologists who wish to hear some of those other voices from the past.

An Ottoman archaeology has many applications for Middle Eastern studies in general. For example, in many anthropological studies of the Middle East, the ethnographic present is the primary focus for this region. In this manner, history is either peripheral, or simply removed from the peoples of the Middle East (L. Abu-Lughod 1989). Even in anthropological works which profess to be historical, few studies examine the development of groups prior to the twentieth century (for an exception, see Messick 1993). An archaeology of the Ottoman centuries should allow us to understand the historically informed processes which accompanied the formation and development of the modern world, as a way to reunite the present with the past.

Ottoman Archaeology as Ethnoarchaeology

Understanding material culture from the archaeological record can be greatly enhanced using ethnographic accounts. (Indeed, in some nations, such as the Republic of Turkey, the material world of the Ottoman past is classified as ethnography.) Traveler's accounts, oral histories, and other writings can also provide information about the past which can be considered closely related to ethnographic or ethnohistoric accounts. The observations of the seventeenth century

Ottoman traveler, Evliyá Çelebi provide a case in point (see von Hammer [1834] for one translation). His descriptions of the Ottoman realm can be to create a greater understanding of the archaeological evidence of material culture and the landscape of that period.

Moreover, ethnographic observations of contemporary behaviors can help provide analogues to understand the archaeological record; understanding the relationships between behavior and material culture in the present, ethnoarchaeologists argue that 'observations of contemporary behavior can facilitate the development and refinement of insights into past behaviors' (Kramer 1979:1). The assumption is that by using analogous inferences we can reconstruct the meaning of material culture in the past (cf., Stahl 1993; Wylie 1985, 1988). More importantly, many people living in this region may be significantly more knowledgeable about the use of material culture, and can have a greater appreciation of cultural continuity and tradition, than archaeological 'experts' (Seeden 1990:150, 156).

Ottoman archaeology as ethnoarchaeology uses the rationale that some evidence of past lifeways can be (1) ethnographically documented in living populations today and projected back in time, (2) based on observations recorded at various point in time in the past, or (3) seen in the material culture of folk survivals. While, these lines of evidence hold great potential for uniting the past and the present, archaeologists must use this approach with caution. As Ziadeh-Seely (this volume) reminds us—usingrich archival sources and ethnographic informants—there is nothing simple nor obvious about Ottoman-period remains.

Over the past 500 years, every village and town of the Middle East has undergone many types of transformations. The most notable is the entanglement of communities within the processes of globalization over the past several centuries. Indeed, the farther back in time one wishes to investigate, the more problematic is becomes to use simple analogy to connect the past directly with the present (Stahl 1993).

The major critique of ethnoarchaeology is that it creates analogies between behaviors and their material correlates as a direct model for the past. This assumes that behaviors are unchanging through time, and that there are only ancient origins for traditions and behaviors. Much like primordial conceptions of ethnicity, notions of tradition can be problematic, especially when they evoke long-term, often mythic time scales (see Herzfeld [1987] for a discussion on the Greek case), and invented traditions are devalued as unauthentic. In cases where specific historical events point to the invention of traditions, we

can accept challenges to the notion of ancient traditions. Otherwise there is ambiguity, which in turn leaves room for notions of unchanged traditions which have ancient roots.

But before ethnoarchaeological analyses are wholly dismissed with this critique, we must realize that ethnoarchaeological research does stress a connection between the recent past and present. More importantly, ethnography and Ottoman archaeology are both united through the concepts of continuity, tradition, and change. Ethnoarchaeological approaches can help us frame questions about the continued (or discontinued) use of material culture throughout the past several centuries.

In *Turkish Traditional Art Today,* Glassie (1993) presents an ethnographic study which portrays the lives and works of craftspeople in Turkey and provides potential inspiration for unlocking the material remains of the Ottoman period. Although he does not seek to explore the Ottoman era—only to understand the nature of Turkish art and tradition—the implications of his ideas resonate with anthropological goals for understanding the meanings of material culture which are considered part of local traditions for this region. As an example, he explains that the *surahi* (a long-necked, bulbous water bottle) originated in a Chinese ceramic form, was interpreted in Anatolia in metal, and then transformed once again into pottery. Today, the form is found in earthenwares and copper. Through this example, Glassie notes (1993:786) that Turkish art transcends its medium. The style and the passion, not the media, are the keys to understanding traditional Turkish art. For the archaeologist, this insight can help, ultimately, to connect the styles and patterns in artifacts to art historical studies of the Ottoman Empire, and well as bring some meaning to the ceramic artifacts which archaeologists often encounter.

Many of the successor states to the empire, even with divergent ideological goals and needs, employ both tradition as well as the more physical remains found through archaeology to anchor their national groupings to distant periods of time. As Kardulias (1994:49) notes for the intersection of archaeology in Greece and Greek nationalism: ‘one does not undertake excavation of Ottoman-period sites because, in part at least, the work would conflict with important national ideological needs.’ Many Greeks base their present identities less on the changes in daily life during their battles for independence from the Ottoman Empire in the mid-nineteenth century, than on the distinction given to its ancient past. The disjuncture accelerates the needs of the state to privilege the remote past and to avoid the actual evidence for the development of the Republic of Greece.

Ottoman Archaeology as a Critique of the Present

A final pathway for an Ottoman archaeology could be to help rethink the use of archaeology in the present—focusing on what archaeologists do not, or cannot, study in the present. Some of the earlier calls for an archaeology of this period (Glock 1985; Kohl 1989; Silberman 1989) invoked contemporary ideologies—and contemporary ways of knowing the present—to explain the lack of sustained scholarly interest in the Ottoman period.

The selective use of the past through archaeology has grave implications for peoples' conceptualizations of their own heritage and identities. Identities of groups do not remain fixed through time, and archaeologist could help to illustrate and describe these developments. Leone (1995:253) has argued that this can 'lead to the formation of alliances among groups that have been treated similarly but have learned to see themselves as . . . different.' Leone is purposefully and actively political in his goals for an archaeology of the recent past. One path for an Ottoman archaeology would follow these notions, critiquing both national boundaries and ethnic identities. Local support for such notions can be expected to be minimal.

Indeed, an Ottoman archaeology as a critique of the present will no doubt often be unpopular, especially for those groups who benefit from the status quo in the Middle East. At Tel el-Hesi, Eakins (1993) examines the health of the Bedouin buried there. These Bedouin may have been involved with the Napoleonic campaign in Palestine. The historic and archaeological significance of this large cemetery is straightforward, yet this study does not help nationalist projects. However, it can illuminate the complex social dynamics of Ottoman Palestine. Placing archaeological finds such as Tel el-Hesi into the historical narrative should add to our understandings of the Ottoman past and contribute new questions and issues for archaeological investigations. Noting the lack of interest in this excavation (there is no major tourist installation for this Ottoman archaeology) will not encourage archaeologists to include the Ottoman period in their excavations. Most of the critiques against Middle Eastern archaeology, against archaeology in Israel, and against corpus of archaeological knowledge seems to have little resonance with those who practice archaeology in the region.

The multiple pathways to an Ottoman archaeology, discussed above, should lead to uncovering components of the Ottoman Empire. Although finding much inspiration in the tradition of historical archaeology of North America and post-medieval archaeology in Europe, the

study of the material culture of the Ottoman Empire will benefit from scholarship stemming from other disciplines, including history and art history, historical geography, architecture, and area studies. Ultimately, however, it is the archaeological community which must decide to explore the history of the Ottoman Empire. The contributions in this volume are meant to raise challenges as well as illustrate possibilities.

UNCOVERING THE OTTOMAN EMPIRE

Archaeological remains are tactile and, potentially, provide a sense of the cultural context for the past landscape. Since society presents itself in material culture in a non self-conscious manner, we expect the interpretations of artifacts to provide a more representative perspective on the masses of peoples who lived and died in the Ottoman realm.

Our concern over what is understood about the Ottoman past is strongly influenced by the critiques against the dominant historiography. For instance, Edward Said (1979:2) argued:

> books are written and congresses held with 'the Orient' as their main focus, with the Orientalist in his new or old guise as their main authority. . . [E]ven if it does not survive as it once did, Orientalism lives on academically through its doctrines and theses about the Orient and the Oriental.

From the patterns of material changes evident in all the archaeological studies from the Ottoman period, we find a vehicle to argue against the assumed stasis of the empire. In locating the processes of change for the Ottoman centuries from the material record, Ottoman archaeology can help rethink the Western and local assumptions about the period. We do not invoke the Ottoman age as a golden period; that would just replicate other archaeological research done in the service of nationalism. We seek the dynamic nature of the recent past to argue against the primordial challenge in the region (and that sadly has been manifested around the world). We accept the cliche that everything changes. Ottoman archaeology can help identify the sources, patterns, and implications of material changes for the Middle East.

THE PROLOGUE

There is still much to do in this new field of study. The chapters in this volume are only a prologue to much needed research, analysis,

and synthesis. We are not at the point of a full set of analyses, and the great diversity of approaches and goals are evident in this volume. The papers in this volume attempt to break new ground for an archaeology of the Ottoman Empire. All of the authors are moving along productive lines to encourage the continuing attempts to incorporate the stratigraphic layers and standing monuments from the Ottoman period into Middle Eastern archaeology and history.

We hope that archaeologists continue the archaeological narrative in the eastern Mediterranean, stretching from human origins through agriculture and urbanism, states and empires, to the doorstep of the present. In addition, we hope to construct comparisons for the modern sites of North America, Europe, southern and eastern Asia, and Africa in order to fully incorporate the analysis and interpretation of the material world of the Middle East into global history. These are ambitious goals which are only outlined by the papers in this volume.

We realize that there is a tendency in any field of study for reactions to new ideas to go through three stages: at first, the new approaches are negated or ignored; second, some say that the approaches had been discovered before; and lastly, some say that they have always used the approaches. We hope that soon archaeologists working throughout this region will be including some of the ideas laid out in this volume as regularly as they include insights from the Bronze and Iron Ages and the Classical periods.

With the aim of encouraging an archaeology of the Ottoman Empire, we find ourselves walking along several different, yet intersecting paths. We can move toward an archaeology of Islam, an historic archaeology of the Middle East, and the inclusion of archaeology in the larger field of Ottoman studies. However, each of these different approaches—and the future success of an archaeology of the Ottoman Empire—is dependent on a united interest in this region, and the many cultures touched by an imperial system and structure.

The contributions presented in this volume hint at some of the many pathways for the archaeology of the Ottoman Empire. Though the full range of approaches are not represented in this volume, the beginnings of an Ottoman archaeology can be found here. We mean to encourage future research, since—just like archaeology in all corners of the planet—the archaeological record of the Ottoman Empire is a finite resource. With population increases, construction projects, and various forms of development, this record needs to be preserved, conserved, and understood.

ACKNOWLEDGMENTS

The editors of this volume would like to thank all those who provided support for the "Breaking New Grounds for an Archaeology of the Ottoman Empire: A Prologue and a Dialogue" Conference held on April 20, 1996 at Binghamton University, State University of New York. We would especially like to thank the Departments of Anthropology at Binghamton University, SUNY, and the University of Massachusetts–Amherst, the Middle East and North Africa Program at Binghamton University, and The Institute of Turkish Studies, Inc. for their financial and logistical support. The ideas in this introductory chapter were influenced by too many people for us to lay out all of their names. However, in addition to the contributors, we would especially like to thank Arthur S. Keene, Donald Whitcomb, Robert Paynter, Charles Orser, Rifa'at Abou-el-Haj, Donald Quataert, Susan Pollock, and Charlie Cobb. Their advice, feedback, and support helped to see this project through publication.

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II

FROM ARCHAEOLOGY TO A "HISTORY FROM BELOW"

The impetus for an archaeology of the Ottoman Empire is twofold. First, the archaeology contains the potential to illuminate the history of the last several centuries in the eastern Mediterranean. Second, the archaeology can critique *Orientalist* assumptions about the empire, the social relations of its subject people, and the impact and nature of the change for the region as it entered the "modern" age. While the potential for an Ottoman Archaeology to confront issues and understandings is discussed in the introduction to the volume, its success can come only from the results of excavations, surveys, and analyses of material remains. In this section, five chapters illustrate aspects of this endeavor. Some of the steps toward an archaeology of the Ottoman Empire are seen in the five chapters of this section.

One of the goals for an archaeology of the Ottoman Empire is to expose the details of past everyday life for the people of the empire. Exposing evidence of daily life—the mundane things that constitute social life for people—facilitates a greater understanding of social dynamics and social change. Historical Archaeology takes as one of its guiding assumptions that material culture is a significant record of behaviors, actions, and choices for peoples who rarely enter the documentary record. This approach has illuminated the lives of workers, women, minorities, and others in such regions as North America, western Europe, and southern Africa as Historical Archaeologists have connected artifacts to culture and history. Some archaeologists use such data to fill in gaps in the historical record; other archaeologists use material remains to confront dominant versions of history. For the Ottoman Empire both tasks are necessary. There is a wide gap between the robust views of the elite and ruling classes and the shadows that fall on the peasants and working classes, between the information on urban areas and the assumptions regarding the countryside, and between portraits of men and images of women. Filling those gaps require innovative approaches to uncover the broad

spectrum of peoples and their patterns of behaviors from the Ottoman past. In conjunction with the new social histories for the Ottoman Empire, material remains can aid in reconstructing change for the empire and yield insights into the choices and actions of its people.

To build a robust archaeology of the Ottoman Empire, archaeological remains need to be excavated, artifacts and documents need to be analyzed and interpreted, and frameworks need to be developed. The richness and complexity of the Ottoman period material record allows a variety of approaches for an Ottoman archaeology and require a wide range of techniques for recovering information. In this section, we include an example of excavations of a site (Ziadeh-Seely on Ti'innik), a survey of a region (Brumfield on Crete), and analysis of standing architecture (Kuniholm on wooden buildings) and artifact collections (Baram on clay tobacco pipes and Carroll on ceramics). Employing methodologies that radiate from history, Middle Eastern archaeology, and Historical Archaeology, the chapters illustrate some of the challenges and possibilities for archaeological research into the Ottoman Empire.

The first level of concern in archaeology is identifying material remains. Brumfield's survey on Crete provides the local history for agriculture and landowning patterns in rural eastern Crete. The field-houses, grain mills, olive mills and presses, wine treading vats, and bread ovens located by her survey indicate social strategies taken by peasants during the centuries of Ottoman rule over Crete. Locating archaeological sites is the first level of research. Ziadeh-Seely provides an example of excavations focused on the Ottoman period. Ziadeh-Seely not only provides the political and social context for the excavations at Ti'innik and the techniques used to access the history of the village, but also illustrates the range of variation for artifacts that come from Ottoman period levels of archaeological sites.

Identifying material variation and chronological change are the key tests for an Ottoman Archaeology, Breaking the notion of a monolithic sameness for the peoples of the Middle East is a significant contribution of excavations and surveys. In order to reach this goal, greater chronological control is necessary, both within the archaeological record of sites and among sites as variation across the Ottoman Empire is sought. Chronology, ironically, is one of the challenges for Ottoman archaeology; Middle Eastern archaeology has greater precision over the Bronze and Iron Age archaeological remains than that of the recent past. The lack of chronological control has allowed Middle Eastern archaeologists to dismiss the Ottoman period as undifferentiated and too modern for archaeological research.

An example of new research into chronology for the Ottoman period comes from Kuniholm's dendrochronology. The Dendrochronology Project has extended the dating of architecture back more than a millennium in Anatolia. As illustrated in Kuniholm's chapter, dendrochronology may prove to be an essential tool in dating structures. That can lead to chronological typologies of artifacts associated with buildings. Once chronological control is established for archaeological assemblages and classes of artifacts, analysis and interpretation of variation is possible.

Chronological control is particularly important since one of the dominant assumptions for the Ottoman Empire after the sixteenth century and for the peasantry of the Middle East and Southeast Europe, in general, is of stasis. By locating chronological change in material life, the archaeology of the Ottoman Empire can bring forward evidence of social change. This is made explicit in Baram's examination of the material correlates for commodities and Carroll's investigation of consumption practices. Baram presents a chronological typology for the clay tobacco pipes uncovered during excavations in Israel. The change in the objects over the centuries is interpreted in terms of global processes that entangled the peoples of the Middle East. That understanding is meant to be a model for other archaeological artifacts of the modern era; the ultimate goal of the exercise revolves around locating the agency of the people of the region. A further exploration of the social meaning of things is found in Carroll's discussion of ceramics. Carroll raises a series of questions for archaeological ceramics uncovered in Anatolia, questions which are meant to understand the lived experiences of Ottoman subjects. Together, these chapters indicate a concern for interpreting artifacts as goods consumed by the non-elite of the empire.

The artifacts and interpretations provide a 'history from below' which reveal the peoples of the region as fully part of historical and social processes of change. The chapters exemplify the possibilities for the archaeology of the Ottoman Empire even while illustrating the challenges faced by archaeologists. The selection illustrates the opening of avenues for research into social life and the uneven processes of change during the Ottoman centuries. Read them as a prologue for an archaeology of the Ottoman Empire which can recover the history for the peoples of the Middle East and Southeastern Europe.

2

Agriculture and Rural Settlement in Ottoman Crete, 1669–1898

A Modern Site Survey

Allaire Brumfield

INTRODUCTION

Crete has been the prized possession of various imperial powers at least since the first century BC, when the Roman general Q. Metellus earned the honorific agnomen *Creticus* by subduing the island (Figure 2.1). Held variously by Saracens, Byzantine Greeks and Venetians, it finally fell to the Ottoman Commander, the Grand Vizier Ahmed Köprülü, in 1669, at the end of a grueling twenty-four year siege of the capital, Candia (Iraklion).

The Ottoman conquest of Crete was the beginning of the end of Venetian power in the eastern Mediterranean, a sign as well as a cause of the eclipse of Venice itself. Yet the victor, too, was already past its best days. The length of time required for the conquest of the island would seem to demonstrate that the Ottoman military machine was not what it had been (Sugar 1977:197). Crete was the last Ottoman conquest of any significance. The ability of the Porte to enforce its decrees and to prevent corruption and exploitation of the *reaya,* the Christian populace, was flagging just as Crete entered the Ottoman realm.

The Ottoman settlement of the agricultural land of Crete is not well understood, because the island has been studied only tangentially by scholars concentrating for the most part on other topics or other regions. A number of authorities have argued that the settlement of

ALLAIRE BRUMFIELD • Department of History, Towson University, Towson, Maryland 21204.

A Historical Archaeology of the Ottoman Empire: Breaking New Ground, edited by Uzi Baram and Lynda Carroll. Kluwer Academic / Plenum Publishers, New York, 2000.

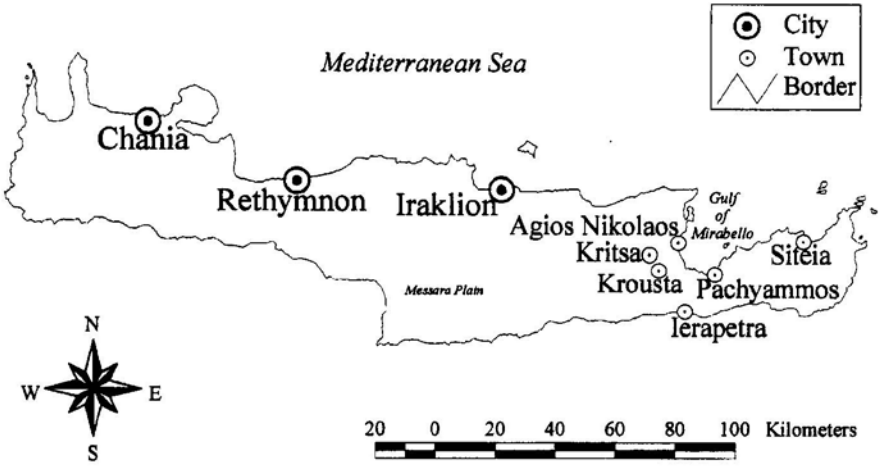

Figure 2.1. The Island of Crete, showing the location of its major cities and towns.

Crete differed significantly from earlier conquests. According to the traditional land-owning system of the Ottoman empire, all agricultural land was technically *miri,* belonging to the Sultan, or the state. Its use could be granted to a *sipahi,* or cavalryman, in return for his military services. Depending on the size of his *timar,* or fief, he would be expected to supply a certain number of soldiers from those working his land. If his son merited it, he could inherit his father's position. However, during the seventeenth and eighteenth centuries, this system was undergoing change. In many Ottoman lands, the *timar* system was being replaced by the *çiftlik* system, in which absentee landlords held large estates as hereditary properties worked by tenant farmers. (This understanding of the development of the *çiftlik* has been challenged in recent studies. See Inalcik [1991:17–34] and Veinstein [1991:35–53])

According to one study Crete was not divided up into *timars,* as had been the earlier custom, but was made a *hükümet sancak,* (a self-governing province; Inalcik, cited in Sugar, [1977:42]).[1] Other studies have led to a related conclusion, that the traditional Ottoman system was never applied in Crete. Instead, the land was left in the free possession of its inhabitants, as 'The explanations furnished by the laws of Chania and Candia in 1676 following the conquest of Crete openly reject the system of land ownership by the state as contrary to Islamic tradition' (Barkan [1983:21–2]. Also see Veinstein [1991:40] and Veinstein and Triantafyllidou-Baladie [1980:200–201]).

This view of Crete's landholding system as constituting a decisive break with traditional Ottoman settlement patterns is strongly contradicted by official Ottoman documents from Crete. This may be because the studies mentioned above draw on archival sources in Istanbul and represent the legislative policies of the imperial center, while the Cretan documents give mundane details of the settlement and local administration of lands in Crete as they came under the control of the conquerors. A selection from the Ottoman Archives in Iraklion has been published in five volumes, covering the period 1657–1765. These texts repeatedly refer to landholders in the traditional terminology, as *timar-* or *zeamet*-holders owing military service and taxes, and this terminology continues into the eighteenth century (Stavrinidis 1975:4, 12, 21, 23, 47, 66; 1985:304–5).

Clearly, large estates or *çiftliks* grew up in fertile plains areas by the nineteenth century, as foreign visitors inform us. Yet the traditional terminology of the military landholding class continued to be used, perhaps obscuring the new reality, that an official class who held the right to farm taxes from smaller landowning *reaya* were becoming dominant.

The incorporation of Crete into the Ottoman imperial system resulted in the occupation of the island by a military establishment which showed similarities to the Venetian feudal system, although the subjects of the Sultan were never serfs. The departure of Greek and Venetian landowners during and after the siege of Candia meant that large estates, especially near the cities, became the property of *Agas,* (officials) Janissaries, (an elite military unit) tax collectors, merchants, and other Ottoman officials who settled in the cities of Chania, Rethymnon, Ierapetra, Siteia and Candia. The *çiftlik* system tended to encourage the cultivation of specialized crops for export and the commercialization of agriculture, even though it did not lead to the introduction of the modern agricultural techniques that were developing in the west in these centuries. This concentration on export crops, especially olive oil in Crete, took place regardless of the fact that Ottoman policy generally forbade the export of any agricultural goods or strategic minerals (Sugar 1977:218). Often the method by which the Ottoman landowners found it most convenient to own and exploit this land was as *vakif* property—land dedicated to a religious purpose and no longer considered *miri* land.[2]

Much of the best land on the island came into Ottoman hands. At the same time the rate of intermarriage and conversion to Islam, especially in the cities, produced a group of people, sometimes called Turkocretans, who by conversion escaped the head tax (*cizye*) levied

on all non-Muslims and also advanced their position in the Muslim society of Crete.[3] Contemporary European travelers commented on the fact that most Cretan 'Turks' were in fact native converts to Islam. Such conversions took place even before the end of the siege of Candia As early as 1657, the villagers of Kato Varsameno in Rethymnon protested that they should not be taxed as *reaya,* since they had converted to Islam. They were therefore not liable for the taxes exacted only on Christians (Stavrinidis 1975:23).

Despite the transfer of large properties into the hands of the Ottoman ruling class, monasteries, considered *vakif* institutions under Muslim law, held on to their lands, and much property in rural districts remained in the hands of free smallholders. The Ottoman taxation system included numerous taxes on the sale and movement of goods, but most important for the peasant freeholder was the *haraç,* one-fifth of the produce from cultivated fields and fruit trees, a tax that was due even if the land was uncultivated. The tax on vineyards, nurseries and gardens was paid in cash. In 1704 the *haraç* was reduced to one-seventh of the crop, and the payment for fruit trees continued to be in cash, except for olive trees; one-seventh of their oil was paid as tax (Triantafyllidou-Baladie 1988:47).

By the nineteenth century, the *çiftlik* was typically worked by tenant farmers, who received one-half of the crop after the treasury had taken its share, and after the landowner had been repaid the seed he had advanced. The landowner rarely resided on his property, but gave its management to an estate manager called a *subasi* The *subasi* did not receive a salary, but a fixed percent of the landlord's one-half share (Hitier 1848:590).[4]

Crete was strategically important to Ottoman naval power in the eastern Mediterranean, but its commercial value was not exploited as intensely by the Porte as it had been by Venice—naturally enough, given the differences between these two cultures. Mercantile activities, formerly a Venetian monopoly, were taken over, under Ottoman rule, by European and Turkish merchants. The French would especially reap commercial benefit from the departure of Venice.

Somewhat of a cultural and political backwater in the eighteenth and nineteenth centuries, Crete did not play a central role in Ottoman history, The island's history in this period can be reconstructed through archives, travelers' accounts, and oral histories. Archaeological survey can also play a role in reconstructing the patterns of agricultural exploitation and rural settlement, by an examination of the physical remains of these activities.

This chapter will attempt to illuminate the historical archaeology of Ottoman Crete by focusing on a site survey of a rural area in the

east of the island, as well as by using archives and documents relative to Crete's agricultural history in this period, especially those that illustrate conditions in the study area. The survey of modern field-houses and other rural agricultural installations was done as part of the Vrokastro Survey Project, an intensive archaeological survey of all periods from the Final Neolithic to the present, carried out in a 40 square kilometer area centering around the Iron Age site of Vrokastro, south of the Bay of Mirabello, in eastern Crete.[5] This rural area appears rarely in historical sources or archives. Foreign travelers, geographers and diplomats did not spend much time investigating the conditions of these small villages. Thus, the physical evidence uncovered by the archaeological survey will be especially useful as a means of reconstructing an agricultural and demographic picture of Ottoman rural life, far from the commercial and political centers.

Three types of evidence will be intertwined: historical sources for the island as a whole, archival and historical sources (including oral histories) relating to the survey region, and the physical evidence documented by the survey. These enable us to understand how the agricultural policies of the imperial center, tempered by the various motives and desires of the Ottoman official class in Crete, interacted with the constraints of the Cretan environment and its peasant cultivators to produce a specific pattern of rural settlement and exploitation.

AGRICULTURE IN OTTOMAN CRETE

Through the centuries, the Cretan peasant has lived by subsistence agriculture, making use of a soil that, although it may appear thin and rocky to Northern Europeans, yields bountiful supplies of grain and provides a superior environment for the cultivation of wine and olive oil. The obscurity of the agricultural enterprise has sometimes given it a lowly place in historical studies, but recently the importance of topography and agriculture in the economic history of the Mediterranean has been reemphasized (Braudel 1972, 1973).

The evidence indicates that the climate and landscape of Crete have been stable at least since the end of the Bronze Age.[6] Therefore one might assume that the same agricultural régime would have persisted over milennia, if the decisions as to which crops to grow were determined by environmental factors alone. In fact, other considerations have played a large role in the agriculture of the island, so that the face of Crete has been altered many times, changing from fields of

grain to vast vineyards, or to olive groves. Why do we find such great variation?

The primary agent of change in the agricultural landscape has been the ruling élite, whose political or economic goals have a powerful, even if sometimes unintentional, effect on the agriculture of the island. One goal might be adherence to a commercial master plan, designed to benefit a distant capital, such as Venice. Another could be the support of a military settlement on the island, which was a primary concern of the Porte. Agricultural planning supported the provision of staples for export, either to the imperial capital or to the military, as well as the effective denial of such staples to hostile states.

Throughout history, Crete's three major crops have been grain, olives, and vines. Although grain, especially barley, has been the mainstay of the peasant family, wine and olive oil have played important roles, both in the diet of the population and in commerce. Venice began encouraging Crete's production of sweet wine for export as early as the fourteenth century. (Francis 1973:16) This growth in viticulture led to unforeseen consequences, however. By the sixteenth century, wine production had expanded to such an extent that there was not enough grain to feed the population or, equally vital, to supply the Venetian galleys with 'biscuit' (Spanakis 1958: 158).

Venetian attempts to persuade the Cretan population to increase grain growing at the expense of the lucrative production of wine for export, and to plow under vineyards that had taken decades to mature, were not very successful. Only after the Ottoman conquest of the island did the grain yield begin to increase. Many factors contributed to the collapse of the Venetian wine trade, among them economic conditions in western Europe, the invention of the glass bottle and cork, and the destruction of Cretan vineyards wrought by the long Veneto-Turkish war. Despite the Quran's condemnation of the use of alcohol by believers, wine continued to be produced for local use even by Muslims. After 1669, monasteries took the opportunity to buy up vineyards owned by the new overlords, to ensure a supply of wine for the Christian liturgy (Stavrinidis 1976:21).

Even before the end of the siege of Candia, the Ottoman commander issued decrees to prevent the supply of grain or oil to enemy ships and to secure its provision for the defenders of Islam. Export of grain was forbidden, except with a special permit and a guarantee as to the grain's destination. The maintenance of the grain supply and control of the price of bread were to become important issues for the Ottoman rulers; numerous documents in the Turkish Archives of Iraklion testify to the Ottoman concern with providing bread for the

Janissaries and the 'peaceful *reaya'* (Stavrinidis 1975:103; 1976:170, 260–1, 285, 356; 1979:146, 151, 164, 170, 230; Triantafyllidou-Baladie 1988:169–175).

Venetians and Ottomans in turn attempted to manage the grain supply so as to support the population and the military. Poor land transportation, administrative inefficiency, corruption and piracy made success difficult. The Ottoman rulers did, however, increase the production of grain so that, at the end of the seventeenth century, there was a surplus for the first time in decades. Contemporary with this increase in grain production and the decline in vineyards was a great increase in olive orchards. Venetian rule was the era of the wine trade; the Ottoman period was characterized by olive oil export.

The massive increase in olive oil production was stimulated by demand from Europe. Because of disastrous olive harvests in France at the end of the seventeenth century, French merchants came to Crete seeking olive oil to supply the soap factories of Marseilles. During the eighteenth century the amount of oil exported from Crete increased by 50%. (Triantafyllidou-Baladie 1988:137) Olive oil became Crete's dominant agricultural product. Visitors describe the island's 'forests of olive trees', as earlier they had remarked on the number of vines (Lithgow 1814:73; Sonnini 1800:1.406).

Another cause of the switch from wine to olive oil production was demographic change in the midseventeenth century. During the devastating Veneto-Turkish war of 1645 to 1669, much agricultural land was destroyed or went out of cultivation, and the population dropped drastically. Many refugees left the island with the Venetians, and skilled agricultural workers, particularly essential for labor-intensive viticulture, were no longer available. Such conditions suited the growing of olives far better than any other crop. Olives can endure neglect more easily than vines, and require labor only at the harvest; labor, furthermore, which has traditionally been performed by women and children.

Although the Porte controlled the price of soap (made from olive oil), and regulated the soap-makers to prevent 'shameful profit' being made (Stavrinidis 1985:28–9), the quality of the oil was unregulated. Throughout the eighteenth and nineteenth centuries, European observers remarked on the low quality of Cretan olive oil and characterized it as uneatable, suitable only for soap, even though it was consumed in quantity by the Cretan peasant. The quantity and quality of the oil would have been improved by better refining techniques and better administration, but since it was largely destined only for soap, even crude manufacturing techniques were considered adequate. The

silting up of the harbors from which oil had formerly been exported was a more serious problem for commerce, but it enabled the administrative center at Iraklion to control the trade and reap its profits (Tournefort 1718:1.23; Randolph 1687:91; Sonnini 1800:1.406, 421; Savary 1781:298, 309; Raulin 1869:244; Hitier 1881:603).

The increase in olive oil production so characteristic of Ottoman Crete seems to have been an unintended byproduct of increased grain production, as well as a result of French commercial interest. As a non-intensive use of the land and its labor resources, olive oil production was well suited to the social conditions of the Ottoman period. The Ottoman rulers of Crete, unlike the Venetians, were not commercially oriented; they did succeed in increasing the grain supply, however, by the simple expedient (often violated) of forbidding grain export.

The erratic nature of the grain supply meant that the situation had to be constantly monitored by local authorities. A famine in 1670 resulted in a ban on exporting grain, but in 1674 the harvest was excellent, and the ban was lifted so that producers might sell their excess crops (Stavrinidis 1976:170).

The vagaries of grain production and supply are not easy to explain. The fertility or productive capacity of the land does not present itself as a static quantity. How could the famine of 1693, resulting in deaths from hunger in the city of Chania, have been followed so quickly, in 1699, by massive surpluses that made possible the export of 30,000 *mouzouria* (562,500 kg.) of wheat (Stavrinidis 1979:151; Triantafyllidou-Baladie 1988: 169)? The drastic fluctuations in the grain supply cannot be explained in terms of agricultural policy alone. The Ottoman authorities clearly intended to ensure a regular supply of grain for administrative and military units, and for the city populations, and this was a reasonable goal, given the fertility of Crete. That they had difficulty doing so is the result of two factors whose importance has often been underestimated: the natural irregularities of agricultural yield, and the lack of transportation for agricultural goods in this era.

Shortages were caused as much by poor transportation and administrative meddling as by crop failure. Even between one province and another, the sale of grain required a government permit (Stavrinidis 1984:227). Ships putting into Cretan ports were obliged by law to sell any grain on board, 'unless grain is abundant and the price is low,' in which case a payment to the Pasha (the local governor) and the customs allowed the captain to elude this requirement (Olivier 1801:2.365).

That the population were suspicious of their local officials, who could be bribed by commercial interests, is attested by the French consul Magy's description of the departure of the French fleet for Marseilles in 1746:

> The mob has got up a petition to the Pasha saying that the French have come to gather up the little food there is here, in a time of hunger, and that the French boats should be driven from Souda (Triantafyllidou-Baladie 1988:184).

As population rose in the second quarter of the eighteenth century, the Ottoman authorities in Candia attempted to guard against local shortages by building underground silos for grain storage (Stavrinidis 1984:178, 218–19, 224–5, 233, 251, 263; 1985:8, 134–5).

By the end of the eighteenth century, grain shortages were becoming more common, because of the increase in the population of consumers in the cities, and perhaps also because of increased olive oil production. The government's attempts to set the price and control the distribution of flour to the bakeries of the cities would only encourage hoarding by the agricultural population and make grain production less attractive to the agricultural entrepreneur. (Triantafyllidou-Baladie 1988:172)

Meanwhile, outside the cities, what was the situation of the rural population, such as the farmers of the Vrokastro survey area? Clearly the Ottoman authorities were most concerned with the city population, and although they kept track of the rural population for purposes of forced labor and taxes, their interest in the peasantry largely ended with these exactions.

Travelers who passed through the countryside described the living conditions of tenant farmers and smallholders. By the end of the eighteenth century, the island was no longer self-sufficient in grain, which had to be imported, yet large areas of land were uncultivated because of a lack of farmers. Olivier, who traveled in 1799, noted:

> . . . the cultivators live on barley bread; the wheat is reserved for the agas and the wealthy of the city. . . Greek cultivators are reduced to living on salted olives, barley bread and wild greens. They rarely enjoy anything better, but sell good food to meet tax obligations.. . (Olivier 1801:2.341, 350; Sonnini 1800:1.352, 405; Savary 1781:415–417).

Barley continued to be the mainstay of the peasantry until well into the nineteenth century. (Chourmouzis 1842:35; Raulin 1869:233)

Hitier, French consul at Chania in the 1840's, left a detailed account of the life of the peasant cultivator. His description of the

çiftlik includes not only a harem and various slave-quarters but also the condition of the Greek farm laborers:

> Their nourishment is composed of barley bread, badly baked, raw or cooked vegetables, olives in salt or oil, water to drink. The use of meat is almost unknown to them. This is the food of all the peasantry, even the well-off proprietors… (Hitier 1881:589)

The farm servant was paid a salary, but the tenant farmer got one-half of the crop at harvest time, after the proprietor had taken the seed which he furnished, and the state had taken its tenth.[7] Hitier adds that Cretan farmers rarely used fertilizer; they did not rotate their crops but planted one cereal after another until the soil was worn out, at which time they let it lie fallow and then restored it by burning or by planting cotton or sesame. Barley was the most common grain and the usual food of the peasant and his animals (Hitier 1881:594–7).

By 1894, the Cretan wheat crop sufficed for only two thirds of the year. Barley, however, from which the agricultural population made its bread, was plentiful (Kalomenopoulos 1894:61). This situation continued even into the twentieth century; in 1914, the provinces of Mirabello and Ierapetra planted twice as much barley as wheat (Annual Statistics of Agricultural Production, 1914).

During the Ottoman period, influences from the West, where agricultural technology was developing rapidly, no longer reached Crete. The *aletri,* or wooden plow, continued in use in the survey area until the end of the nineteenth century.[8] The four-field system of crop rotation, invented in England in the late eighteenth century, was unknown in Crete, where dry fallowing was the latest word in soil treatment. Western inventions which increased farming efficiency, such as the seed drill (invented in England in the early eighteenth century), the horse-drawn harvester and thresher (invented by Cyrus McCormick in 1834), or the steel plow (developed a few years later), did not make their way to Crete before the end of the century. The tools of the peasant were limited to the wooden plow, the sickle, the harrow and the threshing sled, some of which can still be seen in use today in the villages of the survey area (Figures 2.2–2.4).

A RURAL SETTLEMENT HISTORY

The second thread of this discourse, following the overview of the agricultural and landowning patterns of Ottoman Crete, is to examine the Ottoman history of a rural microcosm in eastern Crete, which may

Figure 2.2. Examples of winnowing tools from the village of Prina.

Figure 2.3. Man from the village of Meseleroi, using a threshing sled.

Figure 2.4. A woman winnowing in the village of Prina.

exhibit similarities or differences from the larger pattern associated with the more populated centers of central and western Crete.

The area covered by the Vrokastro survey (Figure 2.5), some 40 square kilometers on the southern coast of the bay of Mirabello in eastern Crete, is largely rural today, as in the past.[9] In antiquity the city-states of Oleros and Istron were minor centers, tied to their more powerful neighbors by cultic and diplomatic bonds. Today the region supports three villages, Kalo Chorio, Prina, and Meseleroi. Kalo Chorio, made up of two settlements, located about 1.5km. south of the coast, is the largest of the three villages, exploiting a fertile valley in the flood plain of the Istron river. The earliest mention of a village in this location is from the late seventeenth century, but the valley was undoubtedly cultivated in earlier periods. A Polish traveler passing through in 1583 writes that he visited the estates of noble Venetians along the coast, including that of "Istona" (Istron). (Hemmerdinger-Iliadou 1967:581). The existence of numerous watermills, some possibly dating from the Venetian period, indicates that the plentiful waterpower of the Istron river was made use of for milling grain. The olive trees in the valley are called *Frangoelies* (Frankish olives) because of their great age and size.

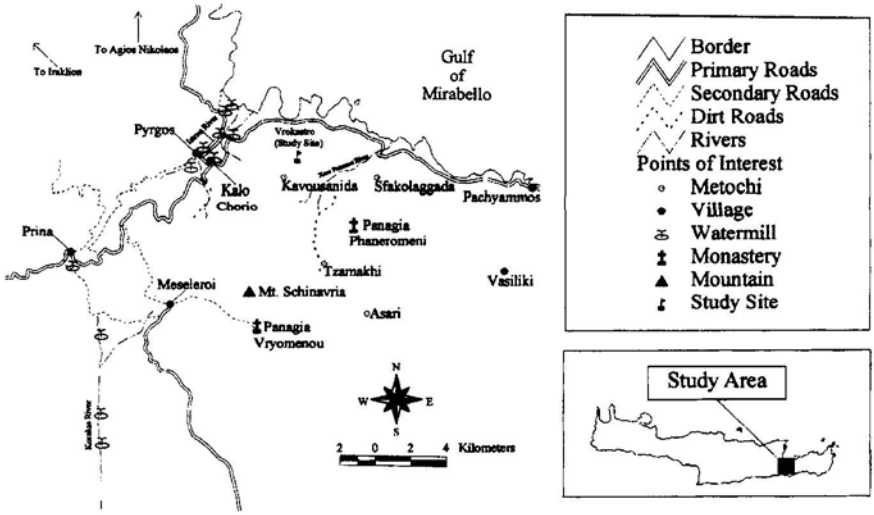

Figure 2.5. The Vrokastro Study Area, showing locations of *metochia,* watermills and monasteries mentioned in the text.

The two remoter villages of Prina and Meseleroi, located in the mountains about 5 kilometers south of the coast, already existed in the Venetian period. A Venetian census of 1583 gave the population of Meseleroi as 155; Prina was surprisingly large, at 329 (Castrofilaca 1583:179). Average village size in sixteenth century Venetian Crete hovered around 165 (Giannopoulos 1978:38). These two villages seem to have accounted for most of the population of the area in the period when there was no village in the Istron valley. Prina, whose name derives from the extensive evergreen forests stretching above it to the Lasithi plateau, is in the southwest corner of the survey area, and Meseleroi, whose name derives from the ancient site of Oleros, is to the southeast. Traditional subsistence agriculture still plays a large role in the economies of these two villages, more so than in the tourist and garden-market oriented economy of Kalo Chorio.

In 1671, two years after the end of the siege of Candia, the Ottoman authorities made a census of those liable for the head tax (*cizye*) required of all adult Christian males. In Meseleroi there were 29 adult male Christians, and the same number in Prina (Stavrinidis 1976:113, 134–5). Demographic data on family size suggests a total population of about 115 for each village, a considerable drop from the total of 484 persons in both villages at the end of the sixteenth century,

perhaps due to the depredations of the war which had just ended. Although the siege was centered on Candia, eastern Crete suffered drastically from piratical raids throughout the fifteenth and sixteenth centuries.[10]

In 1686 a corps of 50 *armatoles,* Christian militiamen, was formed in the Mirabello region, at the request of the Ottoman authorities, to defend the population from bandits. A contemporary document from the Ottoman archives describes a defensive system of towers manned by villagers, to defend the Muslims from the 'infidel outlaws'—Greek and Venetian guerrillas who carried out raids on the population from the fortress of Spina Longa, still in Venetian hands. Towers were located in Meseleroi, in Prina and in Kako Chorio ('bad village'). Meseleroi had one tower, Kako Chorio also one, while the entry for Prina is incomplete. In contrast, the larger village of Kritsa, ten kilometers to the northwest, had four towers (Stavrinidis 1976:297, 340).

The mention of Kako Chorio is the earliest evidence of a settlement in the Istron valley; Kako Chorio is clearly the earlier name of Kalo Chorio ('good village'), which, local legend says, was originally called 'bad' because of its malarial situation, but was euphemistically renamed to encourage settlement. The west bank of the Istron river is still called Pyrgos, 'tower' in Greek, and legend situates a defensive tower here in earlier times. The census of 1671 does not mention a village of Kako Chorio; perhaps it was only a fortified outpost, guarding the coast and the cultivators who used the grainmills of the valley.

In 1689 certain citizens of Meseleroi and Prina, in declaring loyalty to Mehmed Pasha, the governor in Candia, promised to protect the Muslims from harm, and to reimburse, from their own property, anyone robbed by the outlaws. A similar oath was extracted from villagers in every part of Crete, and was surely not made voluntarily; frequent references to the guerrillas' depredations appear in the Turkish archives, such as a description of the capture of a certain Michalis of Prina, a Christian rebel who had taken refuge in the fortress of Spina Longa. Early eighteenth-century tax documents list the villagers of Prina and Meseleroi who were responsible for signing off on the totals of their villages, indicating that these villages were certainly not so remote as to be beyond the reach of the Ottoman administrative system (Stavrinidis 1975:29, 97; 1976:78–80, 211, 293–4, 327–8; 1978:259, 304).

An Italian map published in 1706 labels Meseleroi as 'Castel Messelerus' (Coronelli 1706:71). The name probably derived from its defensive tower, strategically positioned on the mountain pass

between Kritsa and Ierapetra.[11] One of the earliest preserved structures in Meseleroi belongs to this century, with an inscribed date of 1731.

When the Greek War of Independence began in Greece in 1821, Crete also rose against its Ottoman rulers. Local traditions are still current about rebels, such as the band of Captain Perantonis of Meseleroi and his five sons, who won fame for their nighttime raids against Muslim villages. In his efforts to subdue the eastern part of the island, the Ottoman commander Hassan Pasha made Kalo Chorio his headquarters, as it was on the main route from Ierapetra to Kritsa (Kozyris 1973:16, 41–46). The name Perantonis is still extant in Meseleroi. The rebellion in Crete, although it decimated the population, did not result in independence for the island, as it did for parts of the mainland; Crete had to wait almost another century before the European powers would help to release the Ottoman grip.

Kalo Chorio is not mentioned in the seventeenth- and eighteenth-century Ottoman tax documents that mention Meseleroi, Prina, Krousta, Kritsa, and other villages of the area. Not until the 1834 census does the village appear in an official document. In that year Kalo-Khorio, in Mirabello province, had 10 families, and Istronas, in Ierapetra province (across the river), had 20 families. Meseleroi had 40 Christian families, no Muslims, and Prina the same. This produced a total of 440 for the survey area. By 1834 the population of Crete was half what it was in 1821; such was the depopulation wrought by the rebellion (Pashley 1837:2.321, 323–25). Another study supports this drop in population as well as the destruction of villages and olive mills; the authorities forbade the latter to be rebuilt (Chourmouzis 1842:37). Pottery found near the village supports an eighteenth-century foundation date for Kalo Chorio, as does a local tradition that the village was settled about 200 years ago. The settlers were said to be shepherds from Prina and Meseleroi, and this is borne out by the appearance in the village register of names that derive from these mountain villages, as well as from Kritsa and Krousta.

The village office of Meseleroi preserves a register of males beginning in 1838, which perhaps served military and tax purposes. Oral tradition, which insists that Muslims never lived in this village or in Prina, is confirmed both by the census of 1834, and by this document, which preserves no Islamic names. (In this era, ethnic identity was determined by religion; converts changed their names, for example, to Ibrahim or Fatima). The village registers, which go back to the mid-nineteenth century, also contain no characteristically Muslim names. One Ottoman official was present in Kalo Chorio, at any rate; in 1845

the French geographer Raulin stayed with the *bülükbsai,* the regimental commander, of Kalo Chorio (Raulin 1869:163). The large village of Kritsa, home to the *Kadi,* or Muslim judge, in 1700 (Tournefort 1718:2.48), had only two Muslim families in 1834; Ierapetra, an Ottoman administrative center, had a larger Muslim population. By 1881 the total population of the three villages was 772, of which only one person, in Kalo Chorio, was Muslim. By 1894 the three villages totaled about 850 Christians, and by 1903, 1130 (Stavrakis 1890:134, 136; Kalomenopoulos 1894:68; Nouchakis 1903:55).

There are also two monasteries in the survey area. The oldest, the monastery of the Virgin of Vryomenou, is located about two hours walk east of the village of Meseleroi. Epigraphical and architectural evidence indicates that it was built in the fourteenth century, and was still in use in the sixteenth century, but by 1845, it was abandoned (Gerola 1932:4.581; Xanthoudidis 1912:75–76; Raulin 1869:163). The fine stonework and isolated location of this church make it something of a puzzle. After the abandonment of Vryomenou, its land became part of the property of the nearby monastery of the Virgin of Phaneromeni.

Local legend attributes the founding of Phaneromeni to a shepherd employed by Vryomenou, who found an icon of the Virgin in a cave above where the church of Phaneromeni is today. When he removed it, it returned by itself to the cave. This mysterious event signified the Virgin's desire for a monastery on the spot, and the shepherd therefore persuaded the monks of Vryomenou to build it (Psilakis 1988:194). The monastery of Phaneromeni thus originated as a dependancy of Vryomenou.

Although it has been argued that Phaneromeni was founded before the Venetian conquest, this date is unsupported by the architecture presently visible, which is eighteenth century or later (P. Trimandili-McGann, architect, Directorate of Byzantine and Post-Byzantine Antiquities of Crete, personal communication). Local traditions maintain that Phaneromeni harbored a 'secret school', where Orthodox children could learn to read and write under the tutelage of the monks, since local Ottoman officials did not permit Christian priests to teach.

Little remains of the monastic archive, but a few documents attest to the existence of a school here by the eighteenth century. The earliest published excerpt from this archive is dated 1732, written by a student in the flyleaf of a book: 'Good my hand, write the letters well and do not make mistakes that will bring punishment', a common exhortation in eighteenth-century exercise books (Pappadakis 1981: 10). The most famous graduate of Phaneromeni's secret school was Rodanthi, a local heroine of the rebellion of 1821.[12]

During the nineteenth century, the monastery became one of the largest landholders in the area. The scattered monastic holdings were built up over many years, and were considerable, both within the survey area and in eastern Crete generally. Three surviving dedicatory deeds, dating from 1836, 1841 and 1851, give an idea of the piecemeal way in which the monastery's land was built up, and the consequent widespread geographical distribution of these dedications. They range from the area north of Agios Nikolaos to Siteia in the east and the Ierapetra area to the south (Pappadakis 1974:52–59, 76–78, 107–110). The land was worked by monastic personnel or rented in order to secure an income for the monastery. Such dedications of property were made to Christian monasteries, not only for pious purposes, but also to protect land or houses from illegal seizure (although monastic institutions were not exempt from oppression, as we see below). The dedicator continued to occupy the property for his life, and rendered a token rent to the monastery, reckoned at 0.04% of the yield.

Another text from the monastic archive describes a lengthy struggle between the monastery and its Muslim neighbor Ali Aga Tagkalakis, and his son Hussein Aga, from the village of Kentri, north of Ierapetra. The eastern part of the monastery's lands bordered the lands of this family, who disputed the ownership of some twelve and a half acres of grazing land. The monastery produced the monastic codex as proof, while Tagkalakis produced a deed of sale dated 1834. The matter was heard by the Muslim court without resolution, pursued by Tagkalakis's son after his death, and finally resolved in 1863 by the intervention of Dionysios, the Metropolitan of Crete. At this point the Ottoman administration in Ierapetra decided to distribute the disputed property equally between the monastery and Tagkalakis, putting an end to a thirty year dispute (Pappadakis 1979:405–17).[13]

The land-holdings of the monastery are given in a codex dated 1893: properties extending north to the seashore totalled 10,000 stremmata (2,500 acres). The monastery also owned four nearby *metochia.* The word *metochi,* derived from the Greek *metecho,* share, denotes a monastic dependency, as well as the seasonal residence of a farmer. Venetian documents of the seventeenth century describe *metocharoi,* monks who did not live in the main monastery but in a *metochi,* a subsidiary settlement (Xanthoudidis 1913:338). The monastery also held properties scattered in 239 different localities in the provinces of Ierapetra, Mirabello, and Siteia. Various government edicts diminished the monastery's land earlier in the twentieth century; some 10,000 stremmata were sold off in 1933 (Pappadakis 1936:157; Pappadakis 1974:53). Today the monastery rents its diminished land to a local shepherd for grazing.

Asari, now deserted, was founded as a monastic *metochi.* Its existence is first attested in the Ottoman census of 1671, when it had 13 adult Christian males, about half the size of Meseleroi and Prina (Stavrinidis 1976:134–5). Its church, dedicated to St. George, is older, and dates from about 1500 (G. Peers, University of Texas at Austin, personal communication).

Asari contains the ruins of some ten solidly built stone houses. Their carved stone mantelpieces and interior stone archways indicate that these were year-round residences. The settlement formerly had an olive mill and a prolific spring, as well as a number of threshing floors, which also support the view that it was not a seasonal encampment but a subsidiary farming settlement of the monastery, as local tradition maintains.

The chapel of St. George seems to be contemporary with, or a little later than, most of the frescoed churches in the area that can be dated. Asari continued in existence through the eighteenth and nineteenth centuries, but by 1903 the population had dropped to five, and today it is deserted (Stavrinidis 1979:253, 304; Chourmouzis 1842:37; Nouchakis 1903:61).

THE RECENT SYSTEM OF CULTUVATION IN THE VROKASTRO AREA

The extremely dissected mountainous landscape of the survey area is cut through by three mountain torrents, the Korakas, Xeropotamos and Istron, and is divided into numerous microenvironments by differences of elevation, aspect, and soil quality. The area is largely underlain by miocene limestone conglomerates, with significant alluvial deposits only in the flood plain of the Istron river. The soil outside the valley bottoms of Kalo Chorio, Meseleroi, and Kato Prina is thin and sometimes exceedingly rocky. Approximately 50% of the surface is classified as ‘arable’ by the ministry of agriculture.

During the Ottoman period and until about 1970, subsistence agriculture, based on wheat, barley, olives, vines, carobs, and pulses, supported the villagers. Stone-built terraces used for sowing grain, legumes, and fodder are still easily distinguished girdling the mountain slopes, of which the highest is Mt. Schinavria, at 698 m. above sea level. Until the early part of the twentieth century, grain was cultivated on these high fields, some so rocky that today they are only considered suitable for rough grazing. On the valley floor olives and vines would be found, and, near water sources, vegetable gardens. Carobs,

growing wild in the driest areas, yielded plentifully in this area of eastern Crete.

The ethnoarchaeological reconstruction of agricultural exploitation in the earlier twentieth century is also revealing for the Ottoman period. The results of the archaeological survey and of the gathering of 'histories' for each of the fieldhouses or *metochia* make it evident that the settlement and land use patterns, especially the use of *metochia,* were well established by the seventeenth century, and did not alter until after the Second World War. The climate, the crops, and the technological means at the peasants' disposal changed little during the two and a half centuries of Ottoman rule. Generally we can say, in terms of agricultural techniques, the Vrokastro area lagged behind not only western Europe but even western Crete.

The system of land ownership and inheritance which prevailed in the area over the last centuries, by its insistence on the near-equal inheritance of land by all family members, guaranteed the present system of land-holding in which each farmer has numerous plots of land at varying distances from his village and from each other. While this system has been criticized for its irrationality and the inconvenience inevitably attendant on the exploitation of so many parcels, the advantages have not been so obvious. Defenders of the system see it as a practical means for the farmer to reduce his risk of crop failure; a variety of crops planted in different micro-environments means that in a year when some might not yield so well, others could succeed (Forbes 1982:324–359; Gallant 1991:44). Fragmentation of holdings in the traditional system is aimed at minimizing risk, exactly the opposite of commercial agriculture, which aims to consolidate plots and reduce labor costs, so as to maximize yield.

The increasingly intractable problem of plant disease, in a DDT-less era (since pesticides and fertilizer were generally unavailable before 1945), is also avoided in a system where plots are scattered. Small fields, planted now in cereals, next in legumes, here in vines, there in olives, are less prone to the invasion of a pest, whether new or old. Monocropping almost invites the multiplication of specialized pests or diseases, as farmers in the American Midwest have been discovering. The devastation wrought in French vineyards in the mid-nineteenth century by the vine aphid Phylloxera (perhaps brought from the New World) was accomplished like wildfire in the wine districts where one vineyard lay next to another (Unwin 1991:284–296). Phylloxera arrived in Crete only in recent decades, and established itself in the large commercial vineyards near Iraklion, but has not spread through eastern Crete's small and noncontiguous vineyards.

The *dacus* fly is also a rather new pest which grows inside the olive fruit and makes it drop early so that it is either unusable, or if used, produces olive oil with an undesirable acidity level. In a study done in 1948, this pest was given responsibility for destruction of up to 50% of the crop, but earlier observers of the Cretan olive oil industry say nothing of it (Allbaugh 1953:548). Could the spread of the *dacus* fly have been assisted by the immense increase in olive planting during the last seventy years?

The exploitation of scattered plots is made easier by the existence of *metochia,* seasonal residences near the fields. Each village is surrounded by a halo of *metochia* belonging to its citizens, which provides a visual image of the area exploited by that village. It is interesting to note, for example, how far into the periphery of Meseleroi the metochia (and fields) of Kalo Chorio penetrate, showing the growth of the more recently founded but larger village. The map of *metochi* locations in the survey area shows that the walking distance from village to *metochi* varied from a half hour to four hours at most; on average, a villager needed one and a half hours to reach his *metochi.* When asked, villagers name one hour as the normal maximum distance from village to *metochi* and answer that a field three hours away on foot is not worth keeping. Nevertheless, selling inherited land is not such an easy decision. An established olive grove, which does not require frequent visits, might be worth keeping, even up to four hours away. Such distant properties, in the days before motorized transport, required planning to be properly exploited. However, most fields and *metochia* were reached in under one and a half hours on foot.

METOCHIA

Fifty-one sites of the Ottoman period have been identified in the Vrokastro survey area, and on them, eighty-one *metochia,* where farmers lived for weeks or months, to cultivate grain, olives, or grapes.

A *metochi* (Figure 2.6) is a fieldhouse of dry stone construction with a flat roof of twigs, rushes, and roofing clay built on a wooden frame, of one, two, or three rooms. Interviews with elderly villagers who lived in these *metochia* revealed that one or more rooms often served as straw barns, storage rooms or animal stables. The presence of a hearth indicated the room where the family lived, ate and slept. Visits with villagers still residing in their fieldhouses reveal that the presence or absence of windows, plaster, or flooring are not necessarily firm clues as to whether previous inhabitants were human or

Figure 2.6. An example of a two-room *metochi* at Sfakolaggada.

animal. The number of rooms is not a good indicator of the population either, unless the rooms' use is known.

Many of these *metochia* are still in good repair, often with an intact roof, repaired with roofing clay, plastic sheeting or metal, or even re-roofed with concrete. Some of these *metochia* were still lived in as recently as ten years ago. Aside from shepherds, only a few eccentric individuals still live in *metochia,* now that trucks are ubiquitous. Some *metochia* continue in use as animal shelters or storehouses. Many owe their well preserved state to the German occupation, since during the Second World War villagers fled to their *metochia* to escape, first the Italians and then the Nazis. During that period, remote areas were populated year round, not only seasonally. At least one *metochi* was said to have been repaired for use as a hideout by Italian soldiers escaping their erstwhile allies.

Most *metochia* are on sites that were also occupied in the Venetian period, as is clear from pottery recovered by the archaeological survey. Thus the recent pattern of land exploitation and the use of *metochia* as seasonal dwellings has roots far back in the past. Literary references to *metochia* and their various uses from the fifteenth to

the seventeenth centuries corroborate their age (Xanthoudidis 1912:243–244; Pappadakis 1976:31–32).

The seasonal nature of the *metochia* has important methodological consequences for the interpretation of the archaeological record. The *metochia* indicate that the appearance of a large number of sites in the countryside does not necessarily mean an increase in population. Rather they may reveal patterns of landholding and agricultural exploitation. In the Vrokastro survey area, the nucleated settlement pattern, combined with the use of *metochia* near the fields, is associated with an 'extensive' system of agricultural exploitation, in which scattered plots are cultivated in many different crops, rather than an 'intensive' system, under which the exploitation of contiguous plots in more labor-intensive crops requires year round residence in a farmhouse on the property.

To give an example, in the prewar period a family residing in a house in the village also might own a *metochi* close to their grain fields where family members stayed up to a month in the summer for the harvest and processing of grain, fodder, and other field crops. The *metochi* might have a well and garden crops, perhaps salsa, a vineyard, which would necessitate visits at other times of the year for vintage, digging and pruning. There might be a bread oven or a chicken coop or even a wine treading vat, which would make it difficult to distinguish the *metochi's* material remains from those of a permanent residence. Over years of use, this *metochi* would produce very much the same pottery remains, faunal and vegetal remains, and other artifacts, as a year-round residence. If we were to find only the physical remains, we would surely interpret each site as a 'farmstead'.

The elderly villagers who have lived in and used *metochia* are able in many cases to provide a genealogy of use and ownership for them that reaches back to the midnineteenth century. They insist, however, that no matter how many months of the year one lived in a *metochi,* it was not a house, a family residence. Each family belonged to a certain village; *metochia* in each locality belonged to, and were used by, a particular village.

The stone *metochia* are fairly uniform in their design. Their geographical orientation shows no preference with regard to the points of the compass. The structures are built in conformity with the topography of the site, and frequently use preexisting landscape features such as slopes and bedrock outcrops to support their walls. The most common house plan is tandem: rooms are laid out in a line, but usually without connecting doors. This plan is the most flexible, since the rooms' function, for storage, animals, or human habitation, could be

altered, new rooms could easily be added, and windows and doors created or blocked up.

The rooms in the *metochia* vary from the smallest, at about two meters square, to the largest, some thirty meters square. The average room size is a modest three by four meters. The number of rooms varies from one to thirteen. Thirty-one of the *metochia* have two rooms, while twenty of them consist of only one room. Three houses were plastered on the outside and six show traces of interior plaster, although the weather-beaten condition of many of the roofless *metochia* makes this a statistic without much significance.

Bread ovens (Figure 2.7) have been identified in association with eight of the *metochia,* and wine treading vats, harder to identify, with only two. At thirty sites, one or more threshing floors have been identified. Sixteen have animal pens, one has a chicken coop, two are associated with walled vineyards; near one *metochi* a large weight stone for an olive press was found. Thirty-one sites have cisterns, wells or springs identified nearby. It is probably safe to assume that all of them had some source of water near, even if changes in the water table over the last 100 years have obscured this fact.

Figure 2.7. A bread oven in a *metochi* from Meseleroi.

The interior furnishings of the *metochia* are simple, with a hearth for cooking and warmth, windows (although some have no windows at all, and some have only slits in the wall, perhaps for security), sleeping platforms built of rubble and stone, and wall niches, for storage and lighting. The dry stone walls were built without mortar, but the construction method produced well-balanced walls. The *metochia* show evidence of remodeling, with doors blocked up or made into windows, windows filled in or turned into niches, rooms added or their functions changed; a modular house plan. Access to storage rooms or animal pens is sometimes through an interior door or a window, which is perhaps a security feature.

The majority of *metochia* are single, although not necessarily isolated. Sixteen sites have more than one *metochi.* There are four large groups of six *metochia* or more: Sfakolaggada, Asari, Kavousanida, and Tzamaki. The origin of these 'hamlets' differs in each case. Kavousanida was settled by five brothers. Sfakolaggada was farmed cooperatively by seven unrelated families. Tzamakhi was used by unrelated shepherds from Kritsa as well as residents of Kalo Chorio and Meseleroi. Finally, Asari was originally a dependency of the Monastery Phaneromeni.

The memories of elderly villagers about the histories of these *metochia* explain much about their location and arrangement. *Metochia* were not built for monocropping, but show evidence of other activities besides grain production, which was always paramount. Eleven metochi sites still have olives nearby, thirteen have vines, eight have gardens, eighteen have carobs, six have almonds, and three have figs. In twenty-one cases, sheep or goats, whether 50 or 500, were kept at the site for part of the year.

AGRICULTURAL INFRASTRUCTURE

A map of settlement patterns and movement in the countryside would not be complete without the locations of the agricultural installations that still remain in and around the villages. Grainmills, olive mills and presses, wine treading vats, and bread ovens are all deteriorating rapidly. A reconstruction of how these machines worked and what population they served is revealing of the agriculture of the Ottoman period. Fortunately, the villagers who formerly operated them can reveal their function, since the water-driven grain mills were still working into the 1960's and the olive mills until the 1950's.

The location of water mills, whether recently abandoned or out of use for centuries, is informative of the hydrology of the area. The

recent installation of deep machine-dug wells in this part of Crete seems to have had a negative impact on the flow of many springs. This is, at any rate, the impression of villagers, who describe many of their local springs as having provided more water before the deeper wells were dug. A look at the location of watermills on the map shows us where waterpower was to be found in recent centuries. In Kalo Chorio, three mills in a row were powered by the spring at Platania and the spring at Katovrysi. Two mills were powered by the spring at Pyrgos, which still provides irrigation to the valley. Other mills on the flood plain, some of them disused for centuries, show that water power was plentiful here. The villagers claim that there were once twelve watermills in Kalo Chorio; the archaeological survey has located the remains of nine of these.

The watermills which were used by the residents of Prina and Meseleroi are to the south, on the other side of the watershed. Northernmost is the ruined mill of Koutsoura, in the valley of Kato Prina, which was abandoned about 100 years ago, when the water supply from the Prina spring became insufficient for the mill. Still in use until 1960 was the mill on the Petritsi River, south of Prina. Meseleroi residents carried their grain to Braiminia or the Atsali mill, on the lower Korakas river, a walk of some one and a half hours. The use of a village's mill was not restricted to its residents, and people from mountain villages came down to use the mills at Kalo Chorio when their mills were not running. Likewise, the farmers whose *metochia* were located in the easternmost part of the survey area took their grain to Monastiraki to be ground (Figure 2.8), where two large watermills made use of the stream coming out of the Ha gorge to the east.

How old are these mills? At least two in Kalo Chorio have been abandoned for over a hundred years, judging from the deposition of soil over the mill house and the size of the trees growing in that soil. Literary evidence indicates that watermills existed in the plain of Kalo Chorio in the early fifteenth century, even though there was no village here at that time. Buondelmonti saw four mills in constant operation in 1415 (Legrand 1897:149). Similar mills in the Mesara have been dated to the seventeenth century (Vallianos 1985: 11; Clutton 1977:148). Dating these structures is difficult because of the fact that they have been remodeled over the centuries.

Millers are generally described as having been *archontes,* wealthy men, employers of others, on good terms with the local ruler, whether Ottoman or Venetian. The mills at Monastiraki were owned by Muslims until 1912, when they were sold to local residents. The mills of Meseleroi were owned by Muslims until local men bought them in the early part of this century. The mill used by Prina was locally

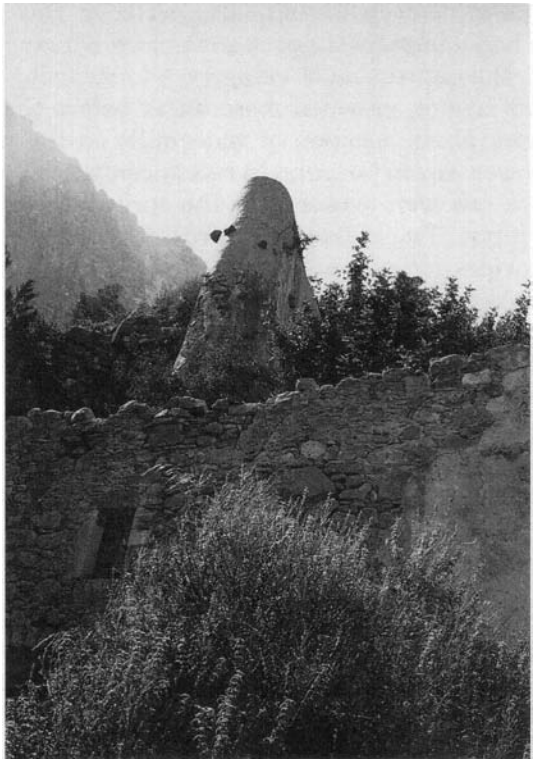

Figure 2.8. The grain mill at Monastiraki.

owned, however. The mills of Kalo Chorio are not remembered as ever having been owned by Muslims, and the toponyms and names of the mills are Greek, many named for nearby chapels. The Modatsou mill in Kalo Chorio, the only one whose name does not derive from a toponym, may betray a Venetian origin for its owner (Modazzo). Local tradition holds that Modatsos was the secretary of the Aga who 'held' Kritsa and Krousta (perhaps this Aga was the *mültezim,* or holder of the tax farm).

It has been suggested that grain-mills were located in inaccessible mountainous spots to enable their owners to avoid paying the tax in kind to the government (Vallianos 1985:10–12). This theory loses credibility in view of the fact that the *haraç* tax was collected in the form of grain, not flour, and therefore at the threshing floor, not at the mill.[14] Especially in arid eastern Crete, the location of grain mills must

have been determined by the availability of water power more than anything else. The mills of Kalo Chorio, for example, served the populations of other villages as far away as Pachyammos, Prina, and Meseleroi, at times when their water power was inadequate. The rotary handmill continued in use, in domestic situations, for the preparation of less finely ground grain products used in soups and porridges. This saved the long trip to the mill and back, as well as the miller's fee, normally ten percent.

The mills, all vertical-axled, were technologically simple. They employed the power of a stream of water, which could be magnified by being gathered in a reservoir, carried in an aqueduct, and shot down a vertical 'chimney', which became progressively narrower, increasing its power, until the water shot out under the mill and drove a horizontal wheel, powering a vertical axle that turned the horizontal

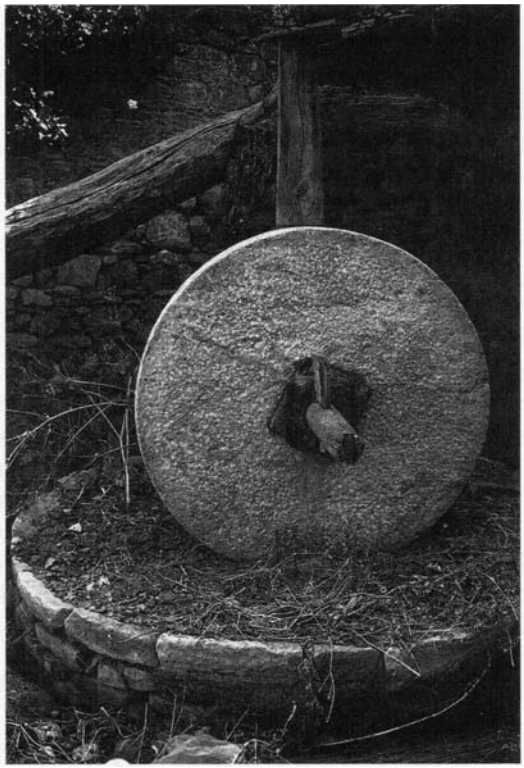

Figure 2.9. One-stone olive crusher from Monastiraki. Olive crushers like this were used in some villages of the Vrokastro study area until the early twentieth century,

millstones which ground the grain. These mills were not able to control the water pressure, but a switch could be used to raise the upper grindstone to prevent it from spinning too fast and 'burning' the flour. The preferred grindstones for these mills were of volcanic rock imported from the island of Melos, which has been a source of millstones in ancient and modern times (Runnels and Murray 1983:62–63).

The olive crushers and presses that formerly served each village were also simple, employing a technology not much altered since antiquity. The olive mill was usually located in a village, near a water source, since oil pressing demanded a large supply of hot water. Remains of mills and presses have been found in Prina and Meseleroi, and in Vasiliki and Monastiraki, villages whose mills were used by *metochia* in the eastern part of the survey area. In Kalo Chorio, although there were formerly eight mills, not one remains. Population growth here has resulted in re-use of the press-houses and destruction of the old machinery.

The mechanical means of producing olive oil evolved slowly in Crete, as it has in Greece generally (Sordinas 1971). The earliest olive-mill, with one crushing stone (Figure 2.9), was simple to construct; except for a few metal nails, it was fashioned entirely of stone and wood (Pitykakis 1983:1.68). It required a number of people to operate it, to guide or assist the mule or ox to pull the horizontal bar which propelled the large vertical millstone around in the circular stone basin, to pour the olives into the basin, and to shovel the olives into the path of the slowly turning millstone. This simple, locally constructed kind of mill seems to have existed relatively unchanged since antiquity, and continued to be used in some villages of the Vrokastro survey area into the 1930's and 40's.

In the midnineteenth century the one-stone crusher and the wooden screw press were still used even in western Crete, although in Greece they were being replaced by a more efficient multistone crusher and by a screw press made entirely of metal (Raulin 1869:243; Hitier 1881:601; Sordinas 1971:12). This new olive mill, the *fabrika,* (from the Italian *fabrica,* 'factory') was introduced to eastern Crete from Milan, Italy, around 1870, thanks to the efforts of K. Adosidis, the Greek governor of Lasithi, who lived in Mirabello (Pitykakis 1983:2.1143; Psilakis 1988:212).

The *fabrika* was more complex than the old mill (Figure 2.10). It had three or four millstones, of different sizes, spaced at different intervals from the central vertical axle. An arm attached to this axle scooped the olives back into the path of the millstones, eliminating one worker. The rods which connected the millstones, and the horizontal

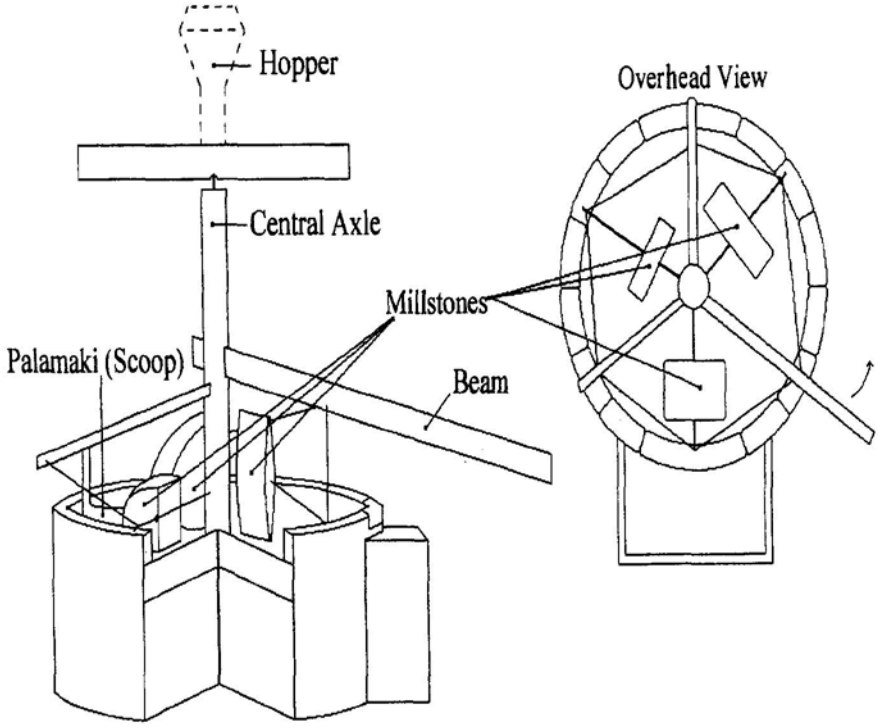

Figure 2.10. A *fabrika* (olive crusher).

axles which connected them to the center pole, were of iron; the fact that these parts could not be manufactured out of locally available materials restricted the spread of this more efficient machine.

Even if the *fabrika* was introduced in eastern Crete in about 1870, it took longer to reach the small villages of the Vrokastro survey area. In 1911 and 1912 two *fabrikes* were built in Meseleroi, while Prina acquired the new machinery between 1910 and 1920, and Vasiliki built its first *fabrika* in 1910. The *fabrika* arrived in Monastiraki only in 1950, when a larger village built a hydraulic press and sold the now-obsolete *fabrika* parts.

The *fabrika* had many advantages over the one-stone crusher. It ground the olives into paste at about twice the speed of the older machine, it worked more smoothly and with less effort from the animal who provided traction power, and it required fewer workers. Yet it could not be constructed without skilled iron-smiths and a source of

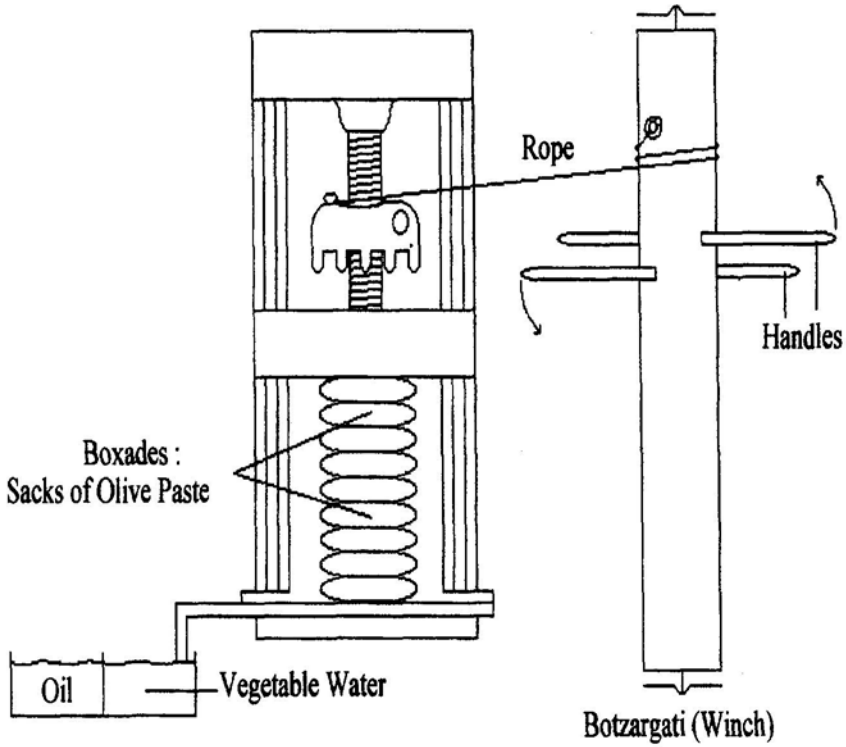

Figure 2.11. A one-screw olive press.

iron, both of which were unavailable in many areas of Crete. For these reasons, the *fabrika* did not everywhere replace the one-stone crusher; both continued in use side by side. In three villages, in Vasiliki, in Monastiraki and in Meseleroi, remains of the two different types are in houses close to each other on the village street.

The second part of the olive oil production process, after the crushing of the olives into paste, was the pressing (Figure 2.11). The olive paste was put in goat hair sacks, which were stacked up on the bed of the wooden screw press. The earliest hardwood screw press consisted of two vertical wooden screws, on which the press head ascended and descended (Pitykakis 1983:1.68). The press head was lowered by hand until movement became difficult. Then the pressure was increased, either by the use of levers inserted into the press head or by the use of a massive vertical wooden windlass fixed to the floor and ceiling of the press house (Figure 2.12). Around this windlass was wound a rope

Figure 2.12. *Botzargati* (windlass) in olive press house in Monastiraki.

attached to the handles under the press head. A number of men turned the windlass by means of vertical rods inserted in it, pulling on the rope and lowering the press head. The oil ran into a settling tank sunk into the floor, from where it could be ladled out, or the oil ran into jars above ground equipped with bungholes at their bases to let out the vegetable water at the bottom. The miller's ten percent fee was paid in kind. Since the *haraç* tax on olive oil was taken at the mill, it was also the miller's responsibility to see that it was collected.

The screw press is a fairly recent invention, a result of the rediscovery and publication, in the sixteenth century, of Hero of Alexandria's *Mechanics.* Venice first popularized this more efficient method of extracting olive oil, and in her colonies the ancient beam press began to be replaced by the wooden screw press. The one-screw press, more complex to manufacture than the two-screw press, probably arrived in Crete sometime in the eighteenth century (Sordinas 1971:14).

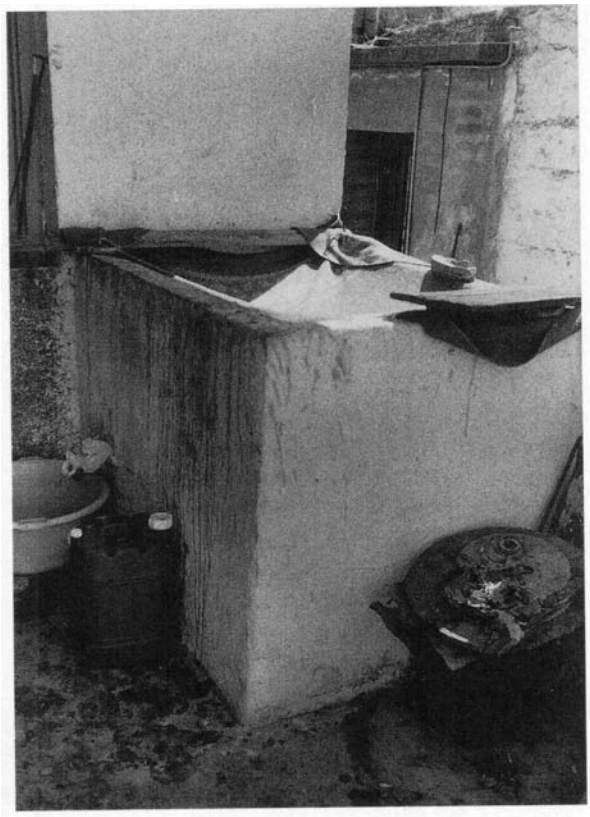

Figure 2.13. Wine treading vat in Prina. Vats such as this are still used today for making wine for home consumption.

Complex as it was, the wooden screw press could be manufactured locally, but the all-metal screw press could not. It was first imported into the Vrokastro area at the end of the last century from Italy, some decades after it came into use in mainland Greece (Sordinas 1971:17). The metal screw presses found in derelict press houses in the survey area are all of similar Italian manufacture. The metal press operated in the same way as the single-screw wooden press; the press head was lowered by manpower, using handles inserted in the vertical wooden windlass. The metal screw press was more efficient than its wooden forerunner; since it was stronger, more pressure could be exerted, and more oil extracted, without cracking the screw or the press head.

In addition to the village olive mills, there is also evidence for small scale olive oil production by hand, which involved beating or crushing the olives with a big stone in a basin, or rolling a cylindrical stone on the olives spread on a flat stone surface. The pulp was wrapped in cloths, stacked up in a basin, and heavy stones were piled on top to press out the oil. Sometimes men would add their weight to the stones, or even more simply, the paste could be immersed in hot water which would draw out the oil, which, rising to the top, could then be ladled out. Such exhausting and inefficient methods were used, according to elderly villagers, during the Ottoman period. 'Homemade' olive oil could escape tax payments in kind and the miller's fee These methods were observed in the late 19th century in Crete (Sarakomenos 1930:70), and continued as late as 1936 (Vickery 1936:52; see also Forbes & Foxhall 1978:39–41).

The third member of the nutritional trinity, wine, has always been produced for domestic consumption in the Vrokastro area. The most common vine cultivated in the area, the *Iliatiko,* produces a sweetish golden wine. This same variety was encountered as early as 1609 by a Scottish traveler, who pronounced Crete's 'Leatic' wine to be the best (Lithgow 1814:68).

Wine for home consumption is still produced in traditional fashion. The grapes are trodden in a stone vat lined with water-proof cement, usually in the courtyard or somewhere near the house (Figure 2.13). The resulting must is stored in barrels and can be drunk as soon as it has stopped fermenting. The grapeskins and pulp are saved for the distillation of *raki,* which takes place in October, after the vintage.

How ancient is the distillation of wine into alcohol, and how long have the Cretans been making *raki?* Brandy became a drink used for other than medicinal purposes only in the sixteenth century in France, but the distillation of alcohol seems to have been invented in the Islamic world (Unwin 1991:236). In 1700, the French traveler Tournefort found Cretan *raki* to be an inferior brandy with '. . . no strength, which smells of burning, and presently goes bad. . .' (Tournefort 1718:2.95–97).

CONCLUSIONS

The first part of this chapter presented a brief recital of the agricultural history of Ottoman Crete. Longer succeeding sections presented a more detailed look at a specific rural area in eastern Crete,

its villages, monasteries, and landholding customs. This concluding section must try to weave the threads convincingly together.

The primary question of interest regards the system of land ownership. All the different types of evidence that we have for the Vrokastro area seems to show that the *çiftlik* system did not take hold here, as it did in the larger plains areas of central and western Crete. The Vrokastro area, perhaps less of a prize, whose lands were less easily exploited on a large scale, does not seem to have been greatly effected by the change in imperial rulers.

The large estates near the cities of Chania and Iraklion that had been held by the Venetian nobility and worked by their serfs *(villani)* passed into the hands of the new Ottoman and military official class when their former owners left the island with the Venetian commander Morosini in 1669. Such estates do not seem to have existed in the Vrokastro area.

Venetian eastern Crete seems to have had fewer feudal properties than the rest of the island. In the earlier period, the nobility of Siteia, unlike their counterparts in the rest of the island, were said to dwell in their villages, not in the city of Siteia, because of the danger posed by the sea-going corsairs. By the late sixteenth century the coastal area from Cape Sidero to Ierapetra was described as deserted on account of piracy; the need to increase grain production caused Venetian officials to search for ways to bring the land back into cultivation. One method by which the Serene Republic encouraged the *contadini* (peasants) to reclaim and cultivate unused land was to give them the status of *gonicari* (inheritors). Such farmers truly owned their houses and lands, and could pass them on to their heirs. Even though they still owed certain feudal duties to the lord, they could not be put off the land or forced to cultivate elsewhere (Giannopoulos 1978:40, 63, 73).

Thus it seems that the Venetian feudarchs' rule over the peasants of the Vrokastro area may have been lighter than in the more fertile and profitable areas to the west, such as in the extensive vineyards surrounding the city of Candia. The Ottoman Agas (as local landowners are generically called in the sources) who stepped into the departing Venetian nobles' shoes also did not take much interest in this rural upland area.

For the Vrokastro area we have no evidence of the *çiftlik* system described as typical of the lands around the cities by the nineteenth century (Raulin 1869:221, 233; Hitier 1881:589–91). The physical remains of these large farmhouses and outbuildings, with their agricultural machinery for processing olives or grain, have not been found in the survey area.[15] Instead, the numerous *metochia* dotted around

the countryside over these centuries argue for the exploitation of this land by smallholders with scattered plots. The archival and statistical evidence seems to indicate that there were few Muslims in the survey area, either converts or Ottoman landowners and officials.

One consequence of the *çiftlik* system, the production of specialized crops for a market, also does not seem to have occurred on a significant scale in the survey area. Olive oil, the most important export of the Ottoman period, was not produced on a large scale in this area. The number of trees that appear to be more than one hundred years old are few compared to western Crete or even the plain of Ierapetra. The statistics from the agricultural censuses of 1914 and 1929 show a low number of olive trees compared to today. In 1914, Mirabello produced more honey than olive oil! (Annual Statistics of Agricultural Production 1914; Agricultural and Pastoral Census 1929).

The number of olive mills in the villages, their size and relatively low technological level also would seem to argue that there was no landlord class involved in promoting the production of olive oil in quantity for export. The villages each seem to have had, at best, only one of the primitive one-stone crushers (*aletrouvidia*) in the early 19th century. No massive installations, such as can be seen, for example, in Corfu, or in monasteries such as Agia Triada Tsangarolou, near Chania, have been found in the survey area. Even the monastery of Phaneromeni, apparently the largest single landowner in the area by the 19th century, preserves no olive milling equipment within its labyrinthine buildings.

The production of grain for subsistence, and for sale to those from poorer mountain villages, seems to have been the dominant concern. One has only to look at the extensive stone terraces, now abandoned, covering every inch of potentially arable soil, even to the heights of Mt Schinavria, to understand that grain for humans and fodder for animals was paramount. The large number of grainmills still extant, especially in Kalo Chorio, underscores the importance of grain, considering the expense of building such installations.

In the survey area, the large landowners, besides the monastery of Phaneromeni, were local Greek families who had aquired privileges from the Venetians and held their position in the Ottoman period as well—the Modatsoi, Frangiodoulides (meaning, slave of the Frank), and Skouloudides, whose landholdings and local political ‘clout’ in the Ottoman period are still remembered. The vast majority of landowners seem to have been smallholders, however, whose systems of labor could involve the employment of harvesters or olive-gatherers, paid in kind, but not on the scale of a share-cropping system.

The lack of a *çiftlik* system and its absentee landlords does not mean that the farmers of Vrokastro avoided the oversight or the tax demands of the Ottoman authorities. Taxes were collected efficiently by the villagers deputized to do so, and the labor and defense requirements of the authorities were met and organized by these same local worthies, as the Turkish Archives of Iraklion make clear. Yet the relative difficulty involved in exploiting their land, and its historic exposure to piracy and danger from the sea, seem to have spared the smallholders of Vrokastro some of the chaos and oppression that characterized the rule of officials and Janissaries in other provinces in the last two centuries of Ottoman rule.

ACKNOWLEDGMENTS

Arguments put forward in this paper will be more fully documented in the forthcoming Vrokastro survey volumes. The Vrokastro Survey Project is directed by Dr. Jennifer Moody of Baylor University and Dr. Barbara Hayden of the University of Pennsylvania, for whose support I am grateful. I am especially grateful to Dr. Hayden for her reading of drafts of this paper and other works in progress. The dates for the fieldhouses were provided by Dr. Margrete Hahn of Odense University, Denmark, who examined the pottery of the Venetian and Turkish periods. Dr. Toula Trimandili-McGann, architect, Directorate of Byzantine and Post-Byzantine Antiquities of Crete, and Dr. Glenn Peers, of the University of Texas at Austin, examined and dated ecclesiastical monuments in the survey area.

I would like to thank Professor Dimitris Pappadakis of Iraklion for explaining the documents of the Phaneromeni monastery to me, Dr. Margaret Mook of Iowa University and Dr. Donald Haggis of UNC–Chapel Hill for sharing their thoughts about *metochia,* and Dr. Harold Koster of Binghamton Community College for his insights into pastoral life. This study was partially supported by the Institute for Aegean Prehistory. The maps and drawings were made by Jaime Alvarez, of Towson University, and the photos were taken by the author.

The people of the survey area were warm and helpful (as Cretans always are) and enthusiastically assisted my research. I want to thank especially Iannis Pappadakis of Pachyammos; Mayor Michalis Maniadakis, the Miaris family and Michalis Gerontis of Kalo Chorio; the Gerontis family and Mayor Michalis Vidakis of Prina; Kostas Skouloudis, Pappas Nikolaos Zacharakis, Manolis Skouloudis,

Despina Skouloudi and Mayor Elefterios Kontopodis of Meseleroi. Finally, thanks to my children, Sarah, Michael, James, and Betsy, who held measuring tapes, got their legs scratched by brambles, and submitted to having their cheeks pinched, all in the interests of ethnography.

NOTES

1. Inalcik (1973:106) does not actually mention Crete.
2. An early (1657) example is the *vakif* of Hatzi Ibrahim Aga of Rethymnon, which consisted of property seized from departed Venetian landowners. Ibrahim collected the income of the villages and rented out the use of various olive mills and gardens (Stavrinidis 1975:12).
3. In modern Greek usage, Muslims (even the modern Muslims of Bosnia!) are generally called Turks, whether their ethnic origin be in fact Albanian or Greek, while all Greeks are assumed to be Christian.
4. The *subasi* was originally a commander of *sipahis* and holder of a *zeamet,* a large military fief (Inalcik 1973:113). The word seems to acquire a less lofty significance in Crete (Stavrinidis 1975:42).
5. The Vrokastro Survey Project is directed by B. J. Hayden of the University Museum of the U of Penna and J. A. Moody of Baylor U, Texas. (see Hayden et *al.* 1992).
6. Rackham (1990) has argued that the Cretan climate became more arid about 3,000 years ago and Sarpaki (1990) has compared prehistoric and contemporary crops.
7. The *haraç* changed from 1/7 to 1/10 under the Egyptian administration of the mid-nineteenth century.
8. The metal plowshare was introduced by the Venetians (Pappadakis 1977:10). The first all-metal plows were imported into Crete from Thessaly at the end of the nineteenth century (*Catalog, Voroi Museum of Cretan Ethnology* 5).
9. The ethnoarchaeological study of the Vrokastro area began in the summer of 1991, included a winter season in 1992–93, and concluded in the summer of 1995. The project involved a reconstruction of the state of agricultural exploitation in the earlier part of this century, before the advent of irrigation, artificial fertilizers, and agricultural machinery. The agricultural technology available in the prewar period clearly had altered little for centuries.
10. For example, in 1538 the famous corsair Khaireddin Barbarossa descended on the northern coast of Crete, destroying crops and carrying off slaves by the thousands (Smith 1965:63). By the end of the 16th century, areas of eastern Crete were deserted to such an extent that the Venetian government was considering how to encourage the reclamation of its agricultural land (Giannopoulos 1978:73 on piracy; see also Braudel 1972–73 and McNeill 1974:136–140).
11. The French traveler Tournefort (1718:1.48–9) traveled by this route in 1700; he did not take the easier way along the north coast and across the isthmus to Ierapetra, which was too exposed to pirates.
12. The daughter of a priest of Kritsa, Rodanthi was sent to be secretly educated by the monks of Phaneromeni, according to the Cretan poet Manolis Dialynas, who tells this traditional story in his epic *Kritsotopoula* (the maid of Kritsa). Forced into a ‘Cretan marriage’ by the Janissary captain of a nearby village, she slit his

throat and escaped into the hills disguised as a man, to join the rebels. Fatally wounded in the battle of Kritsa in 1823, she was revealed as a heroine to her comrades (see Pappadakis 1981:14–22; Dialynas 1912; Kozyris 1973:41–48; Constantinides 1983).

13. A local tradition, current ca. 1875, appears to be a folk version of the Tagkalakis incident. It tells of a wealthy and quarrelsome Aga from Kentri named Dangalis, 'truly a Janissary', who attempted to extort money from the monastery, on the grounds that its goats had damaged his olives. While the monks went out to gather the money, the wicked Aga returned home to find his only daughter dead. The story concludes, with satisfaction, 'God, who is great, had done this miracle.'
14. In 1658, in response to complaints from the Christian peasants of the village of Gerani in Rethymnon, the timar-holder (military landlord) Hussein Aga, promised to collect no more than the amount stipulated by law and to do so at harvest time, collecting cereals at the threshing floor, olive oil at the olive-mill, and wine at the pressing vat (Stavrinidis 1975:47).
15. Such complexes have been found elsewhere; for example, the Hotel Oasis outside Chania is a restored *çiftlik,* with its huge olive mill transformed into a restaurant.

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3

The Archaeology of Ottoman Ti'innik

An Interdisciplinary Approach

Ghada Ziadeh-Seely

INTRODUCTION

Ti'innik is a small village located along the northern border of the West Bank (Palestine grid 170/214, see Figure 3.1). The present village is situated on the east slopes of tell Taanach. The tell has attracted archaeologists since the turn of the century, mainly because of its biblical connections (Glock 1978: 1138). The site, referred to several times in the Bible (e.g., Joshua 12:21, 17:11 and Judges 1:27) was the target of two archaeological expeditions prior to our 1985–87 excavation.

The first excavation which took place between the years 1902 and 1904 was directed by Earnest Sellin (Sellin 1904, 1905). The site was excavated for the second time during 1960's, with Paul Lapp as the director (Lapp 1964, 1967, 1969). So far, materials from that excavation are only partly published (Rast 1978). The subject of this paper is the last excavation, 1985–87, which was directed by Albert Glock. This excavation was aimed at locating and studying the remains of the Ottoman settlement(s), which was a complete departure from the original biblical interest in the site (Ziadeh 1991). The excavation was also a landmark in the history of Palestinian archaeology not only because it was the first excavation to be totally staffed by Palestinians but also because the aims of the excavation were unrelated to traditional biblical archaeology.

GHADA ZIADEH-SEELY • Department of Sociology, Old Dominion University, Norfolk, Virginia 23529.

A Historical Archaeology of the Ottoman Empire: Breaking New Ground, edited by Uzi Baram and Lynda Carroll. Kluwer Academic / Plenum Publishers, New York, 2000.

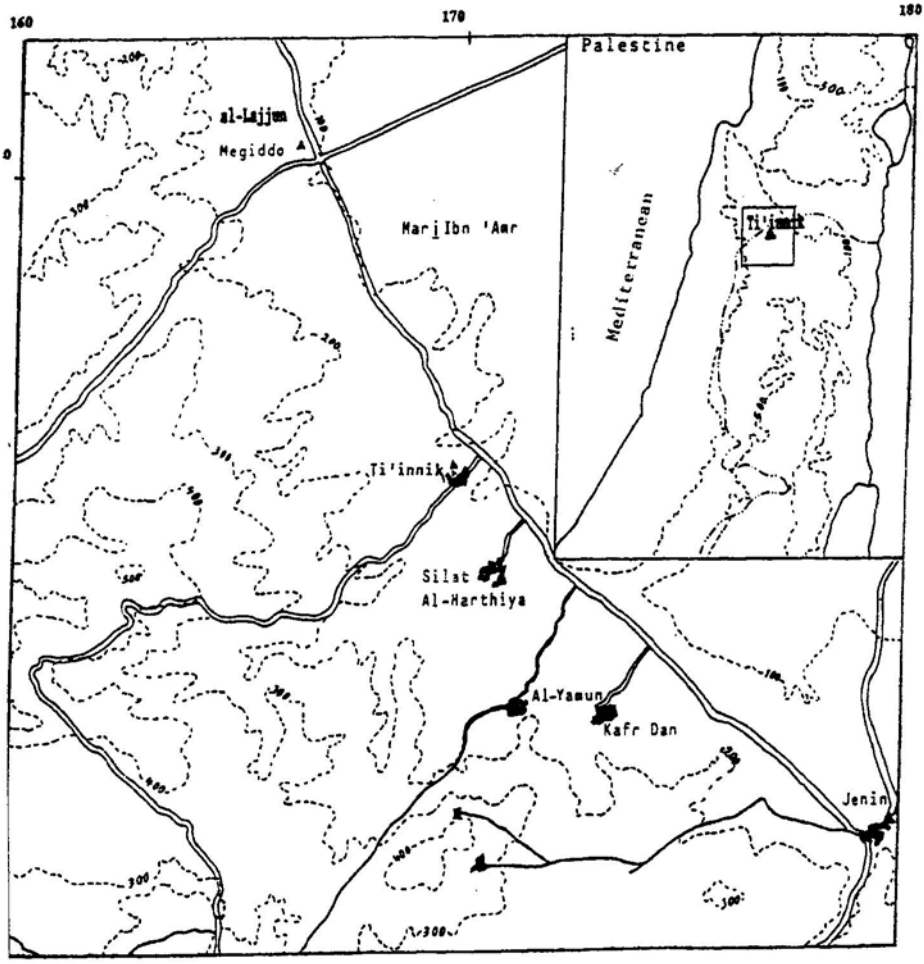

Figure 3.1. The region around Ti'innik.

WHY OTTOMAN ARCHAEOLOGY?

My involvement with Ti'innik began in 1982 when I was asked to carry out an ethnoarchaeological study of the village (Ziadeh 1984). The study was conducted in order to reach a better interpretation and understanding of the unpublished material from the 1960's excavation.

Ethnoarchaeology was a relatively recent trend, at the time, that developed from the realization that the main task of the archaeologist is to reconstruct past societies from the material remains (Watson 1979: 1–10). Studying non-industrial societies was believed to provide an ethnographic foundation on which to develop inferences and to base interpretations (Hodder 1982:28). No direct relationship, however, can generally be assumed between ethnoarchaeological and archaeological contexts (Stark 1993:94). Frequently, the ethnographic data and the archaeological evidence are separated either by millennia or by continents (Binford 1972; Gould 1980; Kramer 1982). Despite the measures taken to achieve scientifically controlled interpretations, the use of ethnographic data carried the risk of erroneous interpretation especially if it had no direct link to that past. Our interest in the archaeology of the Ottoman period emerged out of the desire to evaluate the relevance of ethnographic data to the archaeological context. Because the present is the product of its immediate past, ethnographic data is best tested in relation to its directly related archaeological context. In the case of Palestine this context is the Ottoman period, which lasted from December 1516 until the end of the First World War in 1917.

Tracing historically or ethnographically observed relations back through time within the same or historically related cultural traditions is not new (South 1979:17; Trigger 1989:395). The direct historical approach has been employed in interpreting the native American cultures since last century. For the most part, the direct historical approach is based on the assumption that ethnographic native cultures are not significantly different from their prehistoric counterpart (Trigger 1989:69, 124–5). In the case of Ti'innik, however, we started with the following premises. First, that the present is by definition different from its past and the question is why, and by how much. Second, the present is a direct product of its immediate past. In this context the Ottoman period represents a first step of a long research program of studying the cultural history of the site and the region which can be achieved only by moving systematically and gradually from the present into the past.

POLITICAL, THEORETICAL IMPLICATIONS

Researching the Ottoman period on the part of the author, was an expression of discontent not only with ethnoarchaeology but also with the locally dominant tradition of Biblical archaeology. In Palestine (Israel) archaeological research has been predominantly motivated by

nationalistic and religious politics (Silberman 1989:237–136). For years, the upper strata of archaeological sites had been systematically bulldozed in order to reach earlier strata, the strata assumed to be related to the history of modern Israel. Conveniently, the upper layers happen to contain the archaeological remains of the Arab Muslim era (Glock 1987; Bar-Yosef & Mazar 1982). In effect, this practice lead to negating the history and heritage of the Palestinian Arabs who lived on that soil for generations. Despite the fact that the archaeology of the Ottoman period can be classified under that wider heading of religious archaeology, it should not be allowed to slide into the game of national and religious rivalry. We can overcome the limitation of nationalistic and biblical traditions by calling for an archaeology that investigates issues of cultural history rather than focusing on isolated cultural episodes and periods. I believe that adopting the reverse chronology approach encourages archaeologists to give equal attention to the entire sequence of the cultural history (Ziadeh 1995b).

My researching of the Ottoman period was motivated by theoretical more than nationalistic considerations. Having said that I do not mean that the archaeology of the Ottoman period is totally apolitical. Within the framework of Israeli occupation Ottoman research becomes a symbol of asserting a segment of the history and heritage of the Palestinian Arabs which has been systematically ignored and erased by both Western Biblical and Israeli archaeologists.

USE OF A MULTIDISCIPLINARY DATABASE

Any archaeological research of the Ottoman period is bound to incorporate several types of data, particularly historical and ethnographic. Archaeologists cannot ignore the wealth of information available in written sources. Historical sources used in this research can be divided into three categories: (1) official government records, (2) Islamic court records, and (3) travel accounts.

Among others, government records concerning Ottoman Palestine include sixteenth century detailed tax records, *dafter mûfassal.* The detailed records, *mûfassal,* list not only the amount of taxes but also the names of the head of each household in every village, making it possible to estimate the population size, ethnicity and their mode of production. By listing the types of produce that were subject to taxation and the amount of taxes levied either in kind or cash, the registers help in reconstructing the economy of Palestine in the sixteenth

century. Unfortunately the practice of keeping detailed tax records for the provinces was abandoned by the seventeenth century. The only two registers available for the area that included Ti'innik date to AD 1538/AH 945 and AD 1596/1005 AH (Bakhit & al-Hmud 1989a, 1989b).

Islamic court records, *sijillat al-mahkama al-shar'iyya,* is a different source of information that reflects the daily life in the villages and towns. The records cover a broad spectrum ranging from monitoring the local markets and guilds to much more personal matters such as inheritance, marriage and divorce (Doumani 1986:3–29). No records concerning the early Ottoman Ti'innik were found. They were probably lost with the rest of the *shar'iyya* court records of el-Lajjûn (Bakhit 1982: 123). For the late Ottoman period, information concerning the village is found in the first twelve volumes of Jenin's Islamic court, dating between 1883 and 1914.

Travel accounts, which were abundant during the nineteenth century have limited value in describing life in the countryside. Mainly written by Christian pilgrims, only a few were written by trained observers and scholars such as Burckhardt (1822), Robinson (1843, 1874), and Tristram (1880, 1876). Even those accounts were written through the heavily biased eyes of the Christian West which limited their reliability and objectivity. Occasionally, one finds an account that portray the local population positively such as d'Arvieux (Lewis 1963), and Rogers (1862).

Written history provides a framework within which the archaeological evidence can be understood and interpreted. The relationship between history and archaeology, however, does not flow in a single direction, with archaeology on the receiving end. Because most historical texts are not concerned with the daily life of peasants, archaeology has much to contribute. Archaeological evidence from Ottoman Ti'innik, for example, seems to contradict the common belief regarding the prosperity of the sixteenth century (Inalcik 1985:69–96). At Ti'innik, all the strata dating to the Early Ottoman period show a sharp increase in the amount of crude handmade ceramics. Until very recently hand-made ceramics were produced by individual women for their own household use primarily because people could not afford buying wheel-manufactured pots. This phenomenon implies that the bulk of the ceramic industry that produced the fine glazed wheel-manufactured ceramics up to the end of the Mamluk period had collapsed. In addition to the collapse of ceramic production, related sectors of the economy also collapsed. The livelihood of people who transported and sold ceramics and imported materials used for glazing must have been

affected too. In any case one can detect economic deterioration rather than prosperity contrary to historians' claims (for discussion see Ziadeh 1995a).

Due to the proximity of the Ottoman period to the present, oral history is another valuable source of data to archeologists. One can still talk with elderly people who were born and grew up at the tail end of the Ottoman period. Those people are able to provide us with insights particularly with regard to interpreting the functions of artifacts and spaces at least for the later part of the Ottoman period. Taking oral information into account transforms interpreting the archaeological evidence from mere speculation to interpretation with higher degree of probability.

Ethnographic observations also help verify both oral and written history, Although the inherited life style of the nineteenth century is changing at a fast pace, one can still observe remnants of old practices. For example, throughout the Ottoman period house floors were divided into two levels with the lower level used to shelter animals. Although many of the Late Ottoman houses were still functioning as dwellings, the use of spaces has been modified. During my ethnographic study I observed only one incident in which an animal was kept in the lower part of the house while people were socializing on the raised floor. The use of ethnographic data in conjunction with the archaeological evidence provides a unique opportunity to determine which elements of the archaeological record change over time and the magnitude of that change. This exercise helps redefine the method and degree to which ethnographic data can be used by archaeologists. Although many features of the domestic architecture remain unchanged throughout the Ottoman period, the area of the lower floor gradually declined from half of the roofed space, in the sixteenth century, to one third of the space in the late nineteenth century, until it diminished in houses built after 1950's.

ARCHAEOLOGICAL RESEARCH

Evidence from the 1985–87 excavation of Ti'innik indicates that the early Ottoman village, Strata 6, 7, and 8, was built over parts of the Mamluk, thirteenth through fifteenth centuries, and the Late Byzantine settlement, sixth and seventh centuries. The early sixteenth-century village must have been established some time between 1521–1538. Those were the years in which the first and the second detailed tax records were compiled. According to the second register, *dafter mûfassal marj bani 'amir,* the status of Ti'innik was

changed form a *mazra'a*[1] as in the previous *mûfassal* register, to a village. The village population grew from nine *Khâna*[2] in 1538 (Bakhit & al-Hmud 1989a), to 13 *khâna* in 1596, the date of the last *mûfassal* record of the sixteenth century (Hütteroth & Abdulfattah 1977; Bakhit & al-Hmud 1989b). The end of that settlement is believed to be the middle of the eighteenth century. A coin dating to the reign of Sultan Murad IV (1731–40) is the latest archaeological evidence available at this stage. The end of settlement was part of a massive abandonment of villages in Greater Syria during the 17th and 18th centuries, attributed to economic and political instability (Hütteroth 1975). Both oral and written sources seem to suggest that modern Ti'innik was reestablished around the middle of the 19th century (Conder and Kitchener 1882: Vol. II, 46; Guerin 1874: Vol. II, 226–7) following the Ottoman land reform act of 1858.[3] This occupation corresponds with Stratum 10 of the 1985–7 excavation.

The old domestic architecture found at Ti'innik today remains a witness to a lifestyle that prevailed during the Ottoman period. Until the 1950's people of Ti'innik and most of the Near East lived in clusters of single room houses built around an open courtyard which they called *ahawâsh.* Each cluster (singular is *hawsh*), which is both an architectural and residential unit, was occupied by members of an extended family (See Ziadeh 1984). Close residence maintained the close ties of family members which are essential in societies that depended on collective labor in cultivating the land. Sharing common walls is another feature that remained constant throughout the Ottoman period. A new single room house was constructed by simply adding three walls and a roof to the side of a preexisting structure. Although common walls saved energy and materials, they also provided security by turning a *hawsh* into a fortress like building. The division of the floor into a lower and upper level is a third feature that remained constant in principle, although the ratio differed over time. The area of the lower floor which housed the families livestock decreased over time corresponding inversely with people's dependence on animals. Finally, although the architecture and the social patterns seem to carry some degree of continuity artifacts, particularly ceramics, had been totally replaced by modern glass, aluminum, and plastic.

BREAKING NEW GROUNDS, PROBLEMS

Researching the Ottoman period evokes several difficulties that rise from exploring an unknown territory. One of the first difficulties encountered was identifying the location of Ottoman Ti'innik.

Usually, the location of a settlement can be identified by the surface distribution of ceramics dating to a specific period. To locate the Ottoman village of Ti'innik, we carried out a surface survey in the hope of finding ceramics that could be characterized as Ottoman. The task proved difficult due to the absence of comparative material. Identifying ceramics from the late Islamic periods remains controversial and until recently, the handmade geometrically painted ceramics were considered by most archaeologists to be Mamluk, from the twelfth to fifteenth centuries (Ben-Tor 1978:79; Pringle 1981:45; Sauer 1973; Johns n.d.). Eventually, it was decided that the area which yielded most of the handmade ceramics common ethnographically was the likely location of the Ottoman village (Glock 1983).

Obtaining absolute dates, for the strata considered by us as Ottoman, was essential. Because C^{14} dating is ineffective in dating relatively recent material, and due to the lack of preserved timber that can be used for dendrochronology, we resorted to using Termoluminescence dating[4]. Three samples from strata 6, 7, 8 were sent to the British Museum for processing. Due to technical difficulties the results were inaccurate and contradictory to the relative chronology. One of the problem was our inability to measure the level of radiation at the site. The other has to do with the particular nature of the strata. The amount of emitted radiation corresponds proportionately to the depth at which the shard was buried. It just happened that the samples of stratum 8 came from pits dug into and through the remains of stratum 6 thus were physically lower from the surface than the sample of stratum 6. At this stage dating the strata is based the presence of tobacco pipes in strata 7 through 13 which according to Robinson (1985) and Simpson (1990) have to post date the sixteenth century. We also based our dates on the presence of fourteenth-century white slipped green glazed pottery in stratum 5 (McQuitty & Falkner 1993:59) as well as relative chronology and historical evidence.

Following the excavation, we were left with a massive amount of ceramic shards and only a handful of intact or reconstructable vessels.[5] Out of an estimated 1067 vessels nearly twenty were reconstructable or almost complete the rest remained fragmentary. The lack of complete vessels resulted from the fact that almost none of our ceramics were found in their primary context. The bulk of the Ottoman ceramics come from abandoned houses turned into dump areas, and garbage pits. The practice of turning abandoned houses into dump area remains common in the village at present (Ziadeh 1984). Creating a preliminary typology was very important in order to make

meaningful remarks concerning the ceramics of this neglected period. The typology of forms was based on assembling shards into groups according to the form, fabric, firing, finish and size. The preliminary typology resulted in 31 hand-made and 49 wheel-manufactured forms. Those include more recent forms found in the early twentieth-century strata. Clearly, it will take some time before the chronology and a typology of the late ceramics are refined. The increasing number of studies focusing on the late Islamic periods is an encouraging sign (Johns *et al.* 1989; Pringle 1986; Baram 1996).

CONCLUSION

The multidisciplinary research of the Ottoman period sets it aside from the trappings of the period oriented archaeological research that dominate Mediterranean archaeology. Although this period in interesting in its own right its fundamental attraction lies in the fact that it bridges disciplines in order to achieve a more realistic understanding of the nature and limitations of the archaeological record. The loss of cultural information over the short period of time that lapsed between the present and the Ottoman period forces one to question the extent to which archaeologists are able to fully reconstruct the past. Therefore the research of Ottoman Ti'innik is not going to stop at the perimeters of this period rather, the research will systematically and gradually move back in time to cover the entire cultural history of the site.

NOTES

1. *Mazra'a* can be translated loosely as farm. It was a cultivated stretch of land that was either uninhabited or inhabited on a seasonal basis.
2. *Khâna* is believed to refer to a taxable households unit. Ottoman scholars estimate the population sizes by multiplying the number of *khâna* by a factor of 5, considered to be the average size of a nuclear family. The author of this paper argues elsewhere that the *khâna* actually refers to an extended rather than a nuclear family (see Ziadeh 1991:102–104).
3. In an attempt to control the process of tax collection the Ottomans introduced this land reform act which aimed at registering cultivated land as private property. Under the Muslims all conquered land was considered state property that was given to peasants to cultivate but never to inherit or sell. The right to the land can be negated if the peasants failed to cultivate it for several consecutive years. The Ottomans hoped to hold the peasants accountable for their taxes. Needless to say this policy failed, because peasants were afraid of military drafting and inability to

pay the taxes; most of the cultivated land we registered in the name of a few wealthy landlords. Those same reasons were behind the resettlement of Ti'innik in the nineteenth century. At the time the land known as Ti'innik in the Ottoman records was being cultivated by peasants from the nearby village of Silat al-Harthia. Few landless peasants from that village offered to resettle the site and take the blame if things went wrong in return for one third of the total cultivated property. The oral history of the village can be substantiated by the fact that to this day property owners of Silat al-Harthia require the signature of the appointed head of Ti'innik for any property transaction.

4. Thermoluminescence dating depends on measuring the amount of radiation shards emit through heating. That amount accumulates during the life time of a shared subsequent to its original firing. To determine the age other considerations has to be taken into account. The first is the level of radioactive level of the site. Second the depth at which the shard was found. Both factors are used count the radiation level and thus the dating process. Because of technical difficulties that require capsules to be buried at the site for a period of one year in order estimate the site's radiation level we were unable to obtain accurate TL dates.
5. The amount of ceramics found in stratum 6–13, that were processed by the author for this research was between 480 and 500 kilograms.

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4 Dendrochronologically Dated Ottoman Monuments

Peter Ian Kuniholm

INTRODUCTION

Dendrochronology or tree-ring dating has been carried out by the author in former Ottoman lands since 1973. The method is, at its simplest, to compare the alternately small and large annual growth-rings from trees from a given climate region—in this case as far west as Bosnia and as far east as Erzurum—and to match them so that a unique year-by-year growth profile may be developed. By means of this a precise date determination, accurate even to the year in which the wood was cut, is possible. See Kuniholm (1995) for a fuller discussion of the method; and then see Kuniholm and Striker (1983; 1987) and Kuniholm (1996) for earlier date-lists of Ottoman, post-Byzantine, and Byzantine buildings, including brief notices of dates for a dozen more dated Ottoman buildings, principally in Greece, and additional notices of sampled but not yet dated buildings which are not repeated here.

What follows is a compilation, in reverse chronological order, of over fifty dated buildings or sites (more if one counts their constituent parts) from the nineteenth century back to the twelfth (Figure 4.1). Some are major monuments (imperial mosques, sarays, sifayes) clearly deserving of more comprehensive treatment than can be provided here; others (turbes, mescits, obscure medreses, and private houses) are little-known, perhaps even unheard of except to specialists; but all help to form part of the tree-ring sequence which begins with the rings of trees still standing in Turkish forests and extends in an unbroken chain to A.D.360 for oak, A.D.743 for pine, and A.D.1037 for juniper. All these buildings are part of Ottoman history, no matter

PETER IAN KUNIHOLM • Aegean Dendrochronology Project, Department of the History of Art and Archaeology, Cornell University, Ithaca, New York 14853

A Historical Archaeology of the Ottoman Empire: Breaking New Ground, edited by Uzi Baram and Lynda Carroll. Kluwer Academic / Plenum Publishers, New York, 2000.

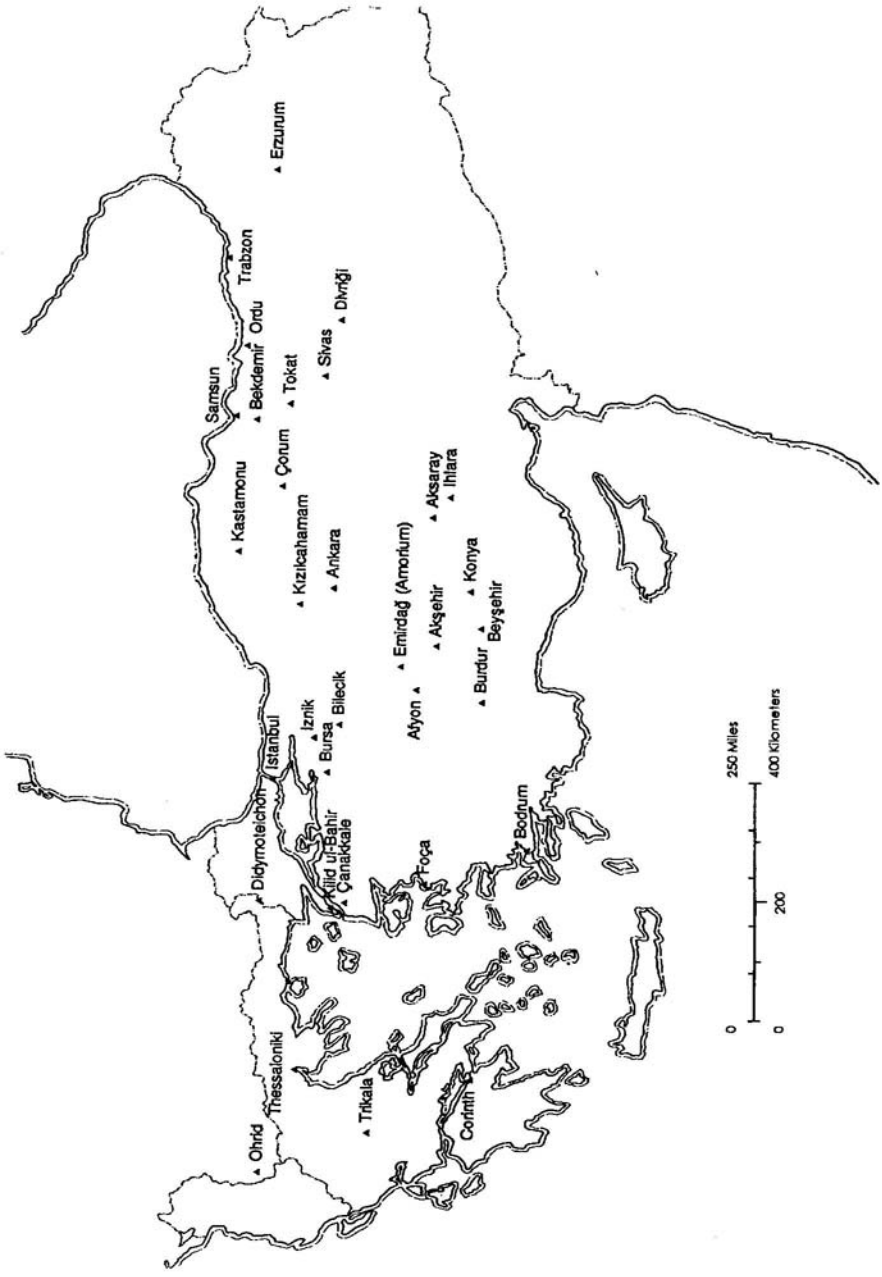

Figure 4.1. Anatolia, showing locations of sites mentioned in the text.

how big or how small they may be. Indeed, some of the lesser monuments have the most important tree-rings in this long chain and therefore merit inclusion in this tabulation for that reason alone. Omission of one or two of them might break the single chain of connected tree-rings into undated parts. Obscure monuments are deliberately given fuller treatment than monuments that are well-known. In other words, the length of any discussion below is not at all governed by the architectural or historical importance or the beauty of the monument. In this list I use the word 'Ottoman' in the broadest possible sense to include monuments which are more properly Beylik or Seljuk but which are part of the same architectural tradition. For a compendium of plans, photographs, and other documentation see the five volumes by Ayverdi (1982, 1989a–d), three by Ayverdi *et al.* (1980, 1981a & b), and one by Yüksel(1983). For a set of drawings and photographs under a single cover see Yetkin (1965). For medreses see Kuran (1969).

Note 1: Some of these monuments are dated by inscription or are mentioned in the texts; others are not. In some cases the dendrochronological evidence is the only means for securing a date. It is instructive to compare the similarities and dissimilarities between the two types of evidence when both are available. Generally, Ottoman building practice was to use wood as soon as it was cut (Kuniholm and Striker, 1987, 387–391). The exceptions to this rule stand out for that very reason.

Note 2: The following terms are used to explain the quality of the date:

- v There is some subjective reason for believing that the last preserved ring is within a few rings of the terminal ring (= last ring formed before the tree was cut down).
- vv There is no way of estimating how far the last preserved ring is from the original terminal ring.
- \+ The specimen's last preserved ring can be counted but not measured (*e.g.,* a partial ring is preserved).
- ++ Several outer rings can be counted but not measured.
- B Bark is present (therefore the terminal ring is present).
- WK Waney Edge ('English' English, no satisfactory 'American' English equivalent) = Waldkante (German) = the ring immediately under the bark.
- BG Beetle Galleries (terminal ring probably present).
- c Outermost ring is continuous around the full circumference of the sample.
- r Outermost ring is continuous for a good portion of the circumference.

The symbols B, WK, BG, and c indicate terminal rings and therefore cutting dates in decreasing order of confidence, unless a + or ++ is also present.

Note 3: Average sapwood in Aegean oaks has been calculated to be 26 ± 9 years. The importance of this observation is that despite the absence of bark on the exterior of a trimmed sample it is nevertheless possible to arrive at a reasonably close estimate for the felling date. For details on how this sapwood calculation was performed see Kuniholm and Striker (1987, 387–391).

Note 4: Monuments #5, 18, 20, 24, 28–30, 33, and 35 were investigated between 1982 and 1987 in a collaboration with C. L. Striker. We trust that he will have some useful architectural comment to add some day, but he is not responsible for the dates given below,

DISCUSSION OF STRUCTURES AND THEIR DATES

1. Small Late Wooden Mosques above Trabzon Various Nineteenth-Century Dates

Of a number of small, late Ottoman mosques near Trabzon visited in 1991, seven can be dendrochronologically dated, all in the nineteenth century. They are little, box-like wooden buildings, sometimes provided with a porch (*revak*), sometimes not. The wood is usually chestnut (not an optimum species for dendrochronology) or fir. Dates of the last-preserved rings are as follows:

a. Trabzon, Boztepe, Ahi Evren Dede Camii	1855++vv (chestnut) 1854+vv (fir)
b. Çaykara, Dernek, Guney Mahallesi Camii	1880+vv (chestnut)
c. Çaykara, Dernek, Kondu Mahallesi Merkez Camii, porch	1894+vv (chestnut)

Comment on the Merkez Camii: The inscription to right of the door reads H.1224 (A.D.1809/1810). On the basis of the one datable sample, it appears that the porch has nothing to do with the part of the building to which the 1809 inscription refers.

d. Of, Bölümlü, Mithatpasa Camii	1874+v (chestnut)
e. Sürmene, Karacakaya Camii	1863+vv (beech)
f. Of, Uzungöl, Filak Mahallesi Camii	1897+vv (fir)

Comment on Filak Mahallesi Camii: The inscription reads H. 1228 (A.D.1813–1814), so the dated wood samples must be repairs.

g. Of, Sugeldi Köyü Camii	1843+vv (chestnut)

For a recent discussion of this set of buildings with map, bibliography, and some plans see Karpuz (1990).

2. Samsun, Bekdemir Camii (Two Phases) 1585ff. and 1876B

The small village of Bekdemir is 10 kms east of Kavak, about 45kms south of Samsun at an altitude of 575m. above the Black Sea. Next to the village square (*meydan*) is a small, unpretentious wooden mosque which holds about 45 people comfortably. The mosque is an almost square box, made of large adzed, undecorated (with two exceptions), oak planks (*pelit* in the local idiom), averaging 5cm. thick and ranging from 20cm. to 44cm. high. The average height of a plank is 38cm., although the planks nearer the ground are generally larger than the planks nearer the roof. The first and second story are separated by two extra-wide horizontal planks decorated with a moulding and a row of palmettes carved in relief, painted green and yellow. These wider planks also mark the transition from the mosque proper to the gallery (*kadinlar mahfili*). The floorboards and joists of the latter do not project outside the shell of the building. All exterior planks are lap-joined to one another so that the ends project about 25cm. from the corners. We also saw evidence of vertical dowelling. The mosque is divided halfway down both east and west walls by vertical struts. Only the two decorated timbers span the entire building. The rest of the mosque, punctuated as it is by windows and the vertical struts, is made up of rather short (two to three meter) lengths of planking. To the naked eye all the exterior planking seems to be about equally weathered, and the preparation of the woodwork seems identical except for the two ornamented courses. There are no obvious signs that this might represent more than one building phase.

Not much is known about the mosque's date. An inscription over the mihrab dates from about 120 years ago. Nobody in the village knows whether the inscription refers to the date of the decoration

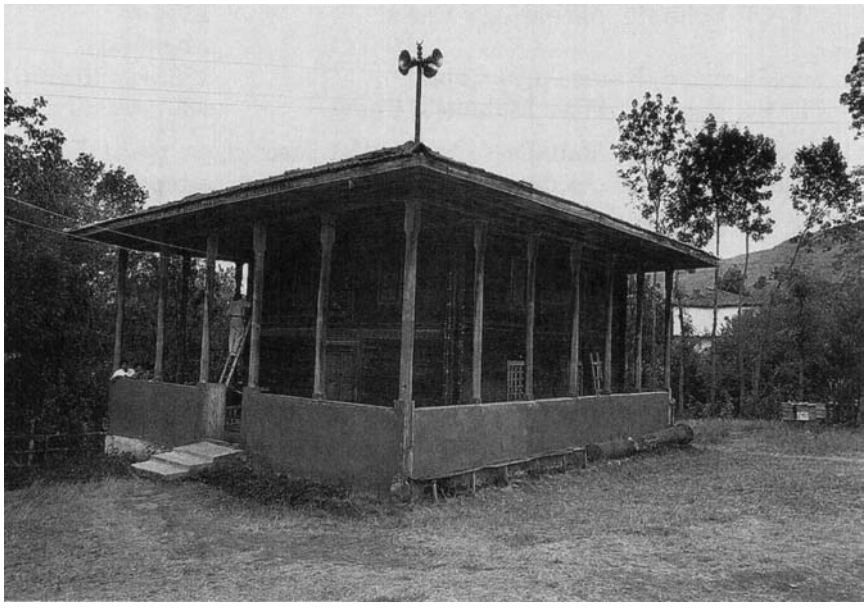

Figure 4.2. Samsun, Kavak, Bekdemirköy, Camii. Boards below the moulding were cut after 1585. Boards above the moulding were cut in 1876. (P. I. Kuniholm, ADP)

(*süsleme*) of the mosque, or to the installation of the mihrab and minber, or to the mosque's rebuilding. The timbers of the mosque are said (local folk memory) to have been brought from the former village of Ortaköy near the river below Bekdemir. A 92-year-old informant said his 110-year-old grandmother told him the mosque was in its present form during all of her lifetime.

At the request of the Samsun Vakiflar Bölge Müdürlügü in less than a day and a half we collected 42 samples. Most planks had 100+ rings; some had 200+; others had 300+. At least two timbers had the bark preserved, and we estimated that we should be able to build a chronology at least 400 years long. We finished with a chronology of 398 years for the first floor and 395 for the second floor. Since the two chronologies overlapped, although just barely, the final total for the mosque is 789 years from 1088 to 1876. Of considerable interest is that both the local folk memory and the tentative inscriptional interpretation of the history of the mosque seem to be correct. The oldest timbers, those nearest the ground and below the ornamental moulding, were cut from trees which were born as early as the 11th century and were felled near the beginning of the 16th century. There are no signs of reuse on any of these timbers, so, if the story of a rebuilt mosque is true, the

form and dimensions must have been the same for both the old and the new building. Above the ornamental palmette moulding which runs across the building about two meters above the porch floor are timbers which were cut in 1876. The bark is present on two of them.

Several questions remain unanswered. If a mosque was well-enough preserved so that it could be moved to Bekdemir and re-erected, why were there just enough timbers for the lower half of the building? Did Building #1 burn at the old location, thereby rendering half the timbers unusable? If so, there are no signs of burning or other damage on any of the older timbers at Bekdemir. If the whole mosque was moved intact to Bekdemir and then fire or some catastrophe occurred, thereby destroying the upper half, there is neither any folk recollection of it nor signs indicating an incendiary reason for the rebuilding. It is also curious that there is no intermixture of old and new timbers. Downstairs is 100% earlier wood, and upstairs is 100% later wood.

The tree-ring chronology from the Bekdemir mosque serves as a cross-check or a time-control on the correct chronological placement of some 65 buildings or chronologies ranging in date from the 12th century to the 20th, and ranging as far afield as 1,300 kilometers or over 800 miles. The monuments include Islamic structures, Orthodox (both Greek and Serbian) churches and monasteries, civil buildings, and military fortifications. Combining Bekdemir with the forest chronology from Zonguldak Yenice, we now have a Black Sea Oak chronology extending back to 1058. Several distant sea-side monuments whose tree-ring profiles closely match Bekdemir may have been built with oak imported from the Black Sea coast. They include Istanbul Hg. Sophia Northwest Buttress, parts of the Thessaloniki Octagonal Tower (Frourio Vardari), Çanakkale Cezayirli Hasan Paga Köskü, and Istanbul Karaköy Vapur Iskelesi (see below).

The little mosque at Bekdemir is therefore the most important single monument (dendrochronologically speaking) we have visited in 25 years. A non-chronological observation may be made here for the one timber whose pith rings at either end may be dated. The tree from which it came took 22 years to grow 6.90 meters or 22′7″.

3. Karaköy Vapur İskelesi 1858B

In 1997 at the Istanbul Archaeological Museum we were given 18 oak logs from a spiked-together grid-section extracted from an enormous harbor construction (apparently a revetment of some sort) of utterly unknown date. They appeared when foundations for a bank were dug behind the ferryboat landing in Karaköy in Galata. Another 100 timbers were saved for us in the bank's storage rooms in the event

that the first 18 proved interesting. The inch-thick hand-wrought spikes could have been from any pre-industrial-age period. Indeed, in the absence of any pottery, we were told that the date could be anything from the 6th century to the present, and we all rather hoped the wood might be early Byzantine.

Most of the wood was cut in 1858. The long timbers match the Black Sea forest profile from near Samsun, and the short cross-pieces match the Thrace profile. None are from the Belgrade Forest, Istanbul's chief local supply of oak. So what we imagine is a huge Ottoman harbor-works project (the plans and photographs we have been given by the Istanbul Museum curators show at least 220 timbers), with ships bringing in wood to the capital from both east and west. There they were spiked together, buried in a clay and gravel fill next to what is today the Yolcu Salonu and the bustling harbor of Istanbul, and—bynow-quite forgotten. It will be interesting, now that we have a fixed date, to see whether any of the researchers working in the Ottoman archives can find a reference to construction activities in Karaköy in 1858.

4. Aksaray, Ihlara, Bezirhane 1842v

In 1997 at the request of the museum director we investigated the so-called Bezirhane, also known as the Yag Fabrikasi, in Ihlara, Aksaray, a multi-roomed, subterranean 'factory' dug out of the tuff in the usual Cappadocian fashion. The guard reports that older villagers remember when the oil press was functioning in the late 1920s.

Two parallel, horizontal logs anchored to the rock form the support for a wooden crosspiece which is threaded to receive a vertical threaded tree-trunk, approximately 0.35m. in diameter, which is turned by a cross-bar near the bottom (virtually a capstan arrangement) so that the bottom end of the wooden screw presses into a cut stone basin. Sections of old screws lying about the cavern attest to the fact that these hand-cut timbers must have snapped fairly regularly during use.

As an experiment to see whether the remaining wood pieces could be dendrochronologically dated, a sample was collected as a test from one of three horizontal members supporting the linseed oil press. The last existing ring was 1842, but clearly the operation could have gone on for centuries with replacement parts being inserted as needed.

5. İstanbul, Altunizade Köskü 1834B

The Altunizade Kögkü, a handsome villa of the nineteenth century and thought to date from the 1830's, stands just beyond the exit of the

Bosphorus bridge. During renovations in 1983 we were able, thanks to help from J. Cramer of the German Archaeological Institute, to sample some of the exposed timbers. An oak wall stud to the west of the *sofa odasi* with the bark still preserved, which may have been imported from as far away as western or central Greece, was cut in 1834. Another timber, a floor joist on the second floor, was stamped with the Latin letters *DK* inside a circle, obviously some kind of forester's stamp, and therefore from outside either the Ottoman Empire (which would have used Arabic letters at that time) or the Greek-speaking world (which would have used a Δ or delta instead of the Latin D). We have so far been unable to find a cross date for this timber anywhere in the Mediterranean.

6, Konya, Karatay Medresesi, Repairs 1832vv

In the north and south flank walls of the Karatay Medresesi (see plan in Kuran, 1969, 51), are two ranges (each) of stretchers scarfed together, the upper range serving as a continuous lintel for multiple windows.

On both walls where we sampled there are joints between the new masonry and the masonry of the primary building. Aptullah Kuran's plan shows them as later additions. The wood of both pairs of stretchers is all cedar, in all likelihood brought from the forest near Elmali, although C. Lightfoot reports memories on the part of local foresters of a remnant cedar forest near Amorium (Emirdağ) which would have been a lot closer than Elmali for import to Konya (Lightfoot, personal communication). We are not able to estimate precisely how much wood has been trimmed from these squared timbers. On the north flank wall two long stretchers, both of which were left rounded and not squared, and another which was partially squared, have the most recent rings, 1832, 1821, and 1829 respectively. Our best guess is that their time of cutting is not much later than 1832. The end dates for the timbers from the south flank wall are somewhat earlier, but since both the masonry and woodwork on these two walls are so similar, we think it is incorrect to posit two different repairs. We have not explored the upper story of this building nor sampled beams near the roof where possibly timbers from the primary construction are still preserved.

7. Sivas, Gök Medrese, Late ___? and 1820vv

Repairs were made to the medrese in 1824 (Rogers, 1965). From the south side, in the middle room of three, directly to the west of the

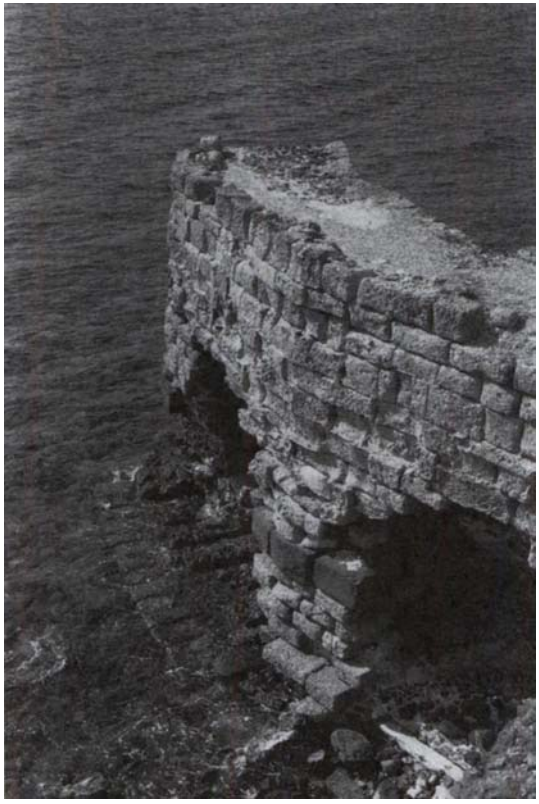

Figure 4.3. Foça, Kaleburnu, slipway for boats (?). Last-preserved rings range in date from 1516 to 1807. (P. I. Kuniholm, ADP)

central *iwan,* the juniper door lintel has a last-preserved ring of 1820. In the same room, a stretcher in the west wall, also of juniper, has a last ring from 1815. Both timbers, therefore, appear to belong to the 1824 repairs. Other timbers in the medrese, not yet dated, may be from an earlier time in the life of this building (Kuran, 1969, 92ff., including plan, elevation, and references for the 1271 foundation date).

8. Foça, Kaleburnu Castle 1516vv to 1807vv

Kaleburnu Castle on the peninsula south of Foça is thought variously to be as early as Genoese or as late as Late Ottoman (Professor Ömer Özyiğt, the excavator of Phokaia, personal communication). At the tip of the point on the west, the rock of the promontory was trimmed

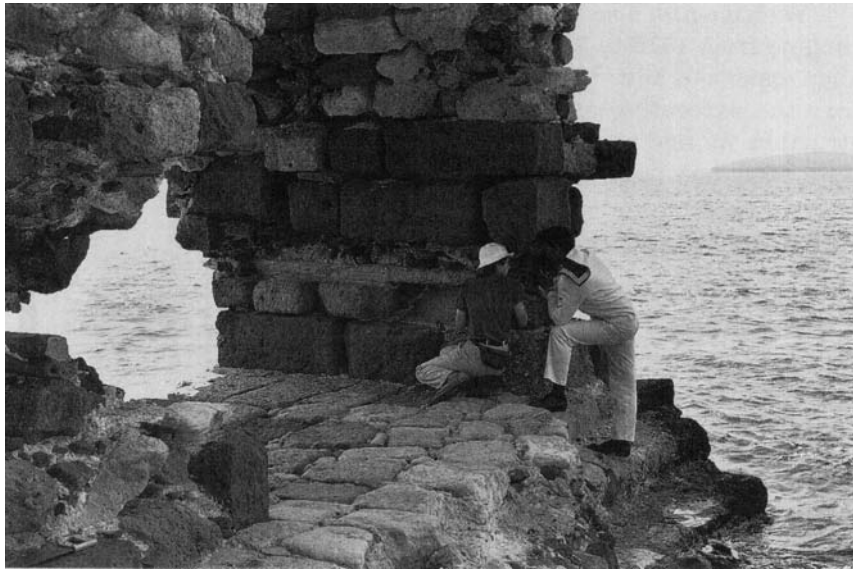

Figure 4.4. Foça, Kaleburnu. The Turkish Navy helps Laura Steele collect a dendrochronological sample. Last-preserved rings range in date from 1516–1807. (P. I. Kuniholm, ADP)

down to make an almost vertical face north-south. Along and against this face is a north-south wall about two meters thick with a series of blind arches which end at the jagged, untrimmed rock. Projecting west from all of this are two east-west walls, about four meters thick which extend west about ten meters before angling toward each other. The extreme west part of the construction is now gone, but a hexagonal or pentagonal plan seems reasonable. Almost at water-level are a series of irregularly sized and irregularly spaced arches (three and a half preserved on the north and two and a half preserved on the south) of irregular width (approx. 2 to 4.5 meters wide) and about 4 meters high. They could have been gun-ports, which does not make much sense since the guns would have been at sea-level and could not have been trained with much latitude. A much better position for siting the guns would have been the top of the promontory. The arches make more sense as slipways through which small boats could have been dragged or winched as at some of the Mt. Athos monasteries. The floor of this area is made of large flat stone slabs, many of which appear to have come from the classical constructions of Phokaia. About a third of the floor on the east is preserved, the rest having been taken away by stone robbers.

We have now a series of fifteen timbers with a variety of end-dates ranging from 1516 to 1807. Many of the gun-embrasures and/or boat-slips appear to have been added piecemeal over a period of centuries from the sixteenth century onward. If this had been the first medieval structure we had visited for dendrochronological sampling, we would have been very puzzled indeed.

9. Çanakkale, Cezayirli Hasan Pasa Köskü — Spring 1783B

For a recent, well-illustrated, and well-documented discussion of this square, turreted tower on the Trojan plain see Ayda Arel (1993). Her conclusions (pp. 183 and 186) illustrate the problem of trying to fit the absolute dendrochronological date of the felling (spring of 1783 with

Figure 4.5. Çanakkale Cezayirli Hasan Pasa Köskü, exterior. (P. I. Kuniholm, ADP)

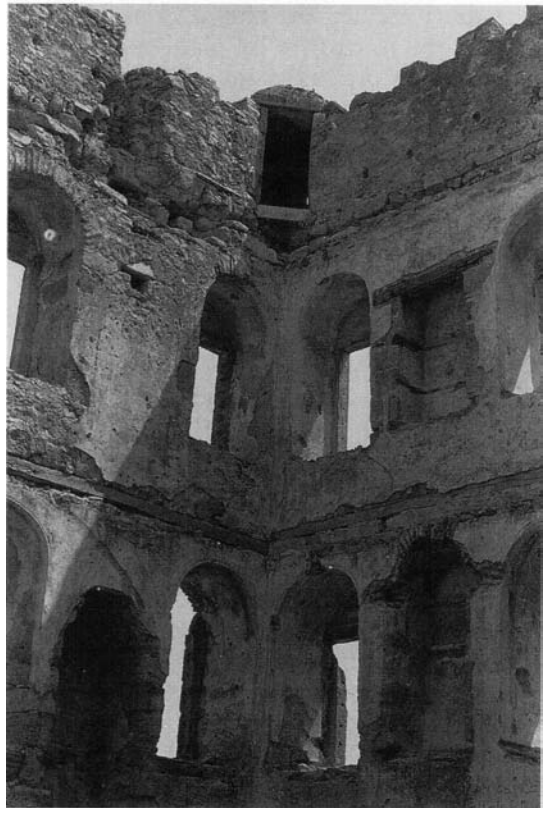

Figure 4.6. Çanakkale Cezayirli Hasan Paga Köskü, interior. All the stretchers were cut in Spring 1783. (P. I. Kuniholm, ADP)

the bark still preserved) of the oak timbers, which form the second and third story string-courses that serve as chain-beams around the interior, with the accounts of a traveler (Lechevalier in 1785 who observed that the Grand Admiral was having his kiosk repaired). We cannot move the cutting date earlier than 1783 as Arel proposes we do, but the Grand Admiral's carpenters could very possibly have been using wood in 1785 that had been cut only two years previously.

10. İznik, Seyh Kutbeddin Mosque & Türbe 1382vv, 1470vv, 1710++vv, etc.

West of the Yesil Cami and immediately south of the Nilufer Imareti (Otto-Dorn, 1941, 33–35) is a small türbe and ruins of a

mosque, 8.50m. square (#6 on her map XVI and see her Taf. 18 and Taf. 19). The structure is square in plan, and perpendicular to it toward the northwest is an adjacent square-planned mausoleum, northeast of which is the minaret. The inscription is lacking, but Kutbeddin is thought to have died in H.821 (A.D.1418). Otto-Dorn therefore says the türbe dates from the early fifteenth century, probably close to 1418. The mosque and minaret are believed to have been a gift of Halil Çandarli Zade (d.1453), but Otto-Dorn does not go beyond saying that they (the mosque and minaret) are later than 1418, noting the differing masonry styles between türbe and mosque/minaret. See Ötüken, Durukan, Acun, and Pekak (1986, #108–#109, 250–253) for another description of the building and a discussion of the building's 15th century founding and history. There seems to be agreement that the mosque was built the same year that Mehmed Muhyiddin Kutbeddin died. There is disagreement on whether the mosque and mausoleum were built simultaneously or consecutively. The eighteenth-century repairs noted below are not relevant to this argument.

In the türbe, south window lintel, the last-preserved ring is 1382vv, but as many as approximately 20 rings may be missing from the exterior. This is the one timber that appears to be certifiably primary.

In the north-south wall, a fallen oak timber from the header and stretcher system has a last-preserved ring of 1470+vv but no bark. The wall has a joint with the turbe and was suspected to be a later modification even before we started measuring.

In the north-south wall about 15 m. south of the türbe, aligned with its east side is a north-south oak stretcher. Several rings appear to have suffered from frost damage (A.D.1655,1656, and 1672). The last existing ring is 1710++vv. We suspect, but cannot yet prove, that there are other late (eighteenth-century) timbers in the ruined walls of the türbe.

What we have, in summary, is one or more interventions (to the turbe itself), or additions (the porch and adjacent rooms), as late as the 18th century to a building that was already three centuries old.

11. Çorum, Eski Yapar, Hüseyin Dede Türbesi 1781v

Above the Bronze Age archaeological excavation site of Eski Yapar, investigated by the Museum of Anatolian Civilizations in Ankara and its then director Raci Temizer, stood the small türbe of one Hüseyin Dede. In 1982, prior to the türbe's removal to adjacent ground to facilitate the work of the excavators, we cored several of its pine posts. The cutting date was either in or very shortly after 1781. I do not believe

the türbe is published and have been unable to find out anything about Hüseyin Dede.

12. Sivas, Divriği, Ulu Cami, Hünkâr Mahfili 1240v, 1665v, 1766WK

This construction is a real curiosity. In a corner of the Divriği Camii and Darüssifasi, a majestic building famous for its ornate stonework (Önge, Ates, and Bayram, 1978), is an improbably crude wooden platform, or *mahfil,* about four meters high, bearing little or no relation to the intricately carved stonework around it (see photographs in Önge, *et al.,* pp. 153–154). Modern restoration of the roof at Divriği was in progress when we arrived—with quantities of new (machine-cut) and old (hand-adzed) timbers heaped on every side—which should have warned us of the possible dangers in interpretation of reused wood from other centuries. Of the five datable timbers in the mahfil, two are from the thirteenth century (1240 or shortly after the time of the building's construction); two are from 1665; and one is from 1766. Several timbers show cuttings which serve no current purpose, indicating prior use. Our best interpretation is that the so-called Hünkâr Mahfili is a

Figure 4.7. Divrigi, Ulu Cami, current roof repairs. (P. I. Kuniholm, ADP)

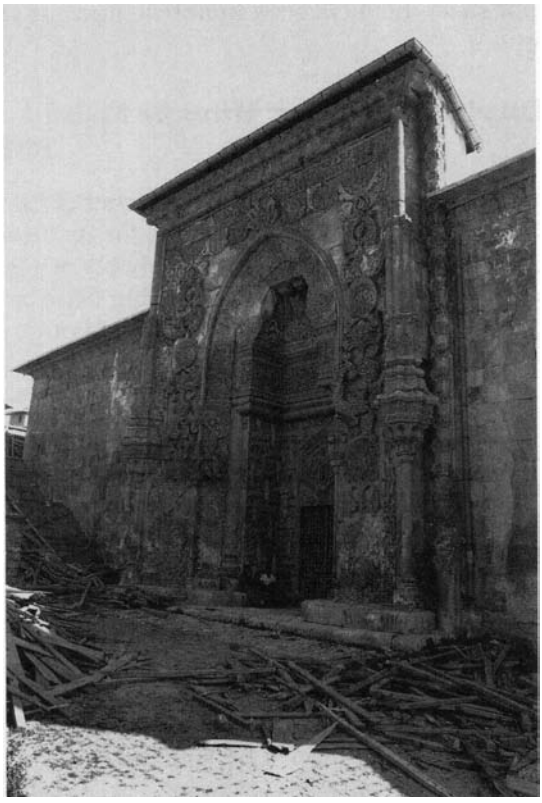

Figure 4.8. Sivas, Divrigi, Ulu Cami, current roof repairs. Some of the tumbled timbers show signs of 20th century machine-cutting. Others are adzed beams from the 13th century. (P. I. Kuniholm, ADP)

construction of the eighteenth century or later, incorporating timbers from the thirteenth, seventeenth, and eighteenth centuries. The mahfil at Divrigi is a rare instance of a single construction where the wooden members date from a span of over five centuries. If only the two pieces from the thirteenth century had been sampled, an entirely erroneous conclusion about the date of the mahfil might have been reached.

13. Konya, Mevlana Müzesi, Sernahane 1571B and 1732+v

Four samples from under the northwest pier (*fil ayağ̆i*) of the dance floor were collected during 1997 renovations by the Konya

Museum staff. The samples are thought by the excavator Mr. Naci Bakirci to be from the sixteenth century from a grid system underneath the pier. There are records of renovations in 1816 under II. Mahmut, and later in 1954 and 1983.

A half section of pine from on top of the grid, possibly (according to Mr. Bakirci) from renovations of 1816 (II. Mahmut) or from even later ones, has a last ring of 1732, and we estimate that few, if any, rings are missing. Three oak sections from lower down in the grid with 286 rings preserved had so many fire scars—and therefore erratic ring-growth—that they were extraordinarily difficult to date. They were cut in the spring of 1571.

14. Erzurum, Çifte Minareli Medrese, Repairs 1306vv, 1717vv

We have one squared juniper lintel beam from the upper story, northeast corner room, north-south lintel between this room and the room immediately to the west. The context is clearly not original, and the last ring is 1717vv.

An east-west pine plank (southern of two) forms a door lintel at the head of the northwest stairs to the second story. The doorway is to the second room from the northwest corner, also probably not an original context. The last ring is 1306vv, or almost half a century after the supposed primary construction (inscription 1271). See drawing in Kuran (1969, 119, Fig. 65; also Rogers, 1965, 63–85, particularly the appendix in the latter in which the arguments about its date are set forth).

15. İznik, Çandarli Kara Ali Türbesi, Wall (an Afterthought?) 1718++vv

This is a small türbe (opposite today's fire-station) on the north side of the main street leading from the Sea-Gate to the Lefke Gate (#11 on K. Otto-Dorn's 1941 map XVI [where it is called the Halil Pasa Turbesi], and see her text pp. 86–88). The inscription reads H.857 (A.D. 1453) according to Otto-Dorn who inadvertently records A.D.1435. Ötüken *et al.,* (1986, #91, p. 218) cite this as *'yaklasik* H.834/A.D.1430'. Somebody needs to go back and check the arithmetic.

Six oak headers and stretchers at various heights from 1.64m. to 2.86m. above grade, forming a framing in the mudbrick (*kerpiç*) wall surrounding the tombs, have a last-preserved ring at 1718vv. The surrounding wall could be either a pious afterthought or a replacement

for some kind of wall that presumably was erected in the fifteenth century (Ötüken, Durukan, Acun, and Pekak, 1986, #91, 218–219).

16. Burdur, Koca Oda, Various Phases 1654B, 1712vv (repair?)

The Koca Oda, also known as the Baki Bey Konagi or the Çelikbag Konağı, is a handsome 'Anadolu Evi' recently restored by the Burdur Municipality and the Vakiflar. The house has pine porch joists, north side of building, supporting an *eyvan* above. All are likely to be primary. They are not dated as of March 1998.

In the ground floor 'Konferans Salonu,' three large north-south juniper joists (est. diam. 0.37m.) support 38 east-west floor joists. Beam #2 from the south has a terminal ring at 1654B. The eastern-most joist has a last ring from 1712vv (a repair?).

The pine samples from this site do not crossdate well with each other or externally with any of our forest master chronologies. It is thus impossible to determine whether the joists and posts they were taken from were cut at the time of building, were reused wood, or were repairs put in at various later dates. These samples are a puzzle, and we need more pine samples from the immediate area to solve it.

17. Kizilcahamam, Hidirlar Camii 1704v

In the winter of 1996–1997, colleagues in the Vakiflar (*Abide Subesi*) sent us photocopies of wood from an inscriptionless mosque in Hidirlar Village near Kizilcahamam north of Ankara. Photocopies are problematical because one cannot sand them to improve their appearance before measuring. However, the architects in the Department of Monuments had done a fine job of polishing the wood before putting the timbers on the copy machine, and we were able measure the photocopies directly and from them to report a date of 1704 for both a foundation beam and an upstairs window lintel. In the summer of 1997, we were given the wood and measured it just to be on the safe side. The date is still 1704.

18. Ohrid, Sv. Sofija, Ottoman Modifications to the Naos 1673B

This three-aisled eleventh-century Byzantine church, visited in 1987, yielded 30 tie-beams from the naos which are clear evidence of Ottoman use of the building ('Fethiye Camii' in Ayverdi EIII:3, 1981,

136). The mihrab and minber are still preserved, and the pointed arches were a signal, even before we started drilling, that we were dealing with Ottoman modifications. The 1673 cutting date is only four years after a severe earthquake damaged much of the Dalmatian coast according to the Director of the Zavod za Zaštitu Spomeniku Kulturu in Priština.

19. Bilecik, Vezirhan (Köprülü Mehmet Pasa) 1657B

This kervansaray on one of the old silk roads, largely destroyed by fire in H.1331 (A.D.1912/1913), was a foundation of Köprülü Mehmet Pasa. The building is divided in halves with the remains of cubicles along both the long sides, each equipped with fireplaces, chimneys, and storage niches, and each large enough to accommodate a party of travelers and their animals. The framing timbers in the window niches of the south end of the building were cut in 1657. I am told by colleagues (but have not seen the text myself) that Kâtip Çelebi in the *Cihannuma* gives the date as H.1070 (A.D.1659/1660), a year or two after he died(?!) This apparent discrepancy will have to remain a curiosity until I can track down the reference.

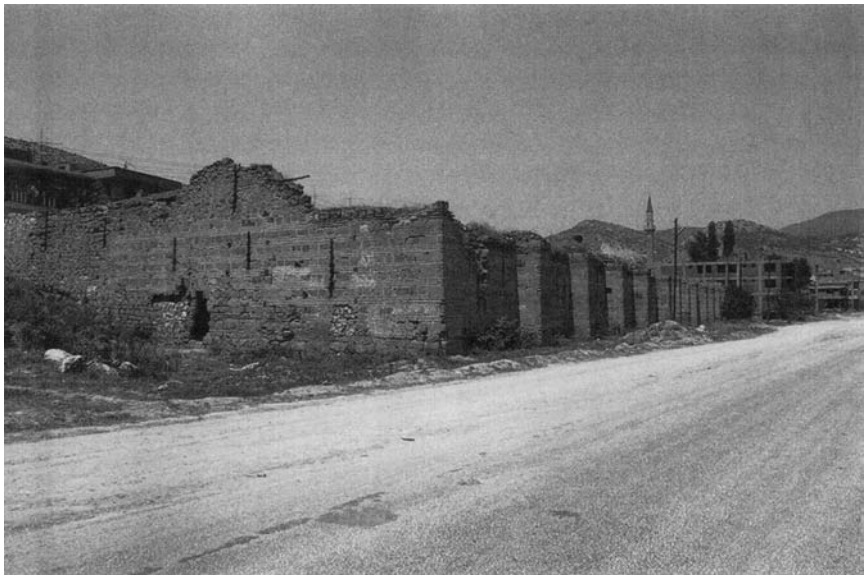

Figure 4.9. Bilecik, Vezirhan (Köprülü Mehmet Pasa), exterior, from the old caravan road. (P. I. Kuniholm, ADP)

Figure 4.10. Bilecik, Vezirhan (Köprülü Mehmet Pasa), central courtyard, with timbers cut in 1657. The function of the timber above and to the left of the doorway is inexplicable. (P. I. Kuniholm, ADP)

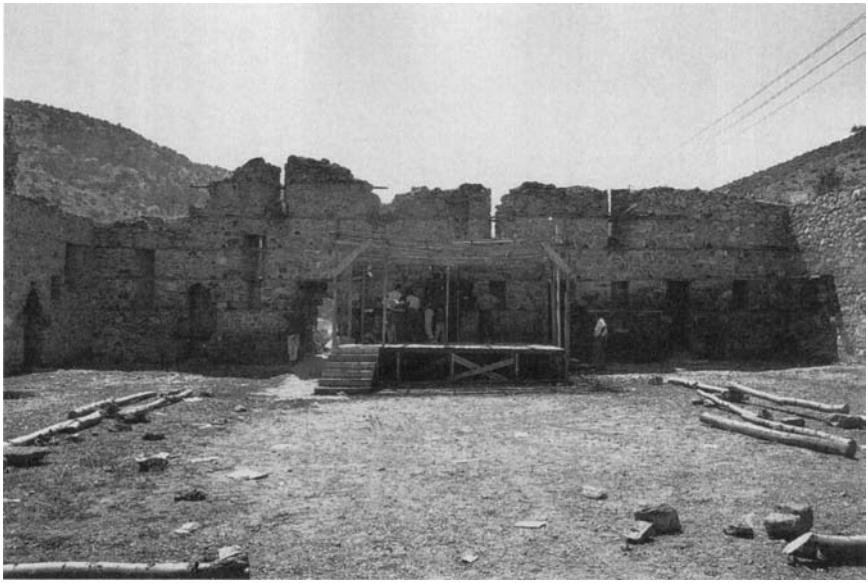

Figure 4.11. Bilecik, Vezirhan (Köprülü Mehmet Pasa), south end, with timbers cut in 1657. Each bay has a chimney, a slit window, and a storage niche for food and valuables. The bandstand is modern. (P. I. Kuniholm, ADP)

20. Thessaloniki, Frourio Vardari (Octagonal Tower) Spring 1597B

On the west side of the harbor in Thessaloniki is a three-story octagonal tower which is the analogue to the Leukos Pyrgos defending the harbor on the east. From this monument a set of chain-beams was collected. They run horizontally around the inside of the octagon and are cut both to fit one another as well as to be held in place by enormous iron spikes driven vertically into the masonry of the walls. The last existing ring just under the bark has springwood cells from late April or early May, 1597. There is a good possibility that some of the wood in the tower is imported from the Black Sea coast. There is also unpublished documentation for the building which has reportedly been found by Machiel Kiel in the Ottoman archives in Istanbul.

21. Yassiada (Bodrum), Ottoman Shipwreck 1572vv

This shipwreck just off Bodrum, excavated by Cemal Pulak, has a sixteenth-century 4-real silver coin from Seville (Philip II, 1566–1589) to help date it (Pulak 1984–1985:10–15). The cargo has its best parallels in the North Aegean and Black Sea. Similarly, our best dendrochronological fits for the best-preserved oak timber are from northern sites (see also Pulak 1983, 1984).

22. Burdur, Tas Oda 1342vv, 1479vv, 1546vv, 1566WK, 1569vv

From this handsome konak or 'Anadolu Evi' in downtown Burdur, not far from the Koca Oda (above), and also recently restored by the Burdur Municipality and the Vakiflar, a 464-year juniper chronology was developed which provided more dendrochronological than architectural information because it pushed our absolutely-dated ring-sequence back to 1103. A check with the Burdur Kültür Müdürlügü and the Vakiflar for information on historical sources, if any, for this building and the Koca Oda has not yet turned up anything useful.

Pine and juniper cores were drilled from the three squared beams of the door lintel in the north-south wall at the north end of building, the original exit to the west (but which now opens into a blank wall). The context suggests that it is not necessarily from the primary phase of building. The last existing ring is 1569.

From the ground floor, in the old stable (now the porch) at the north end of the building, a north-south beam projects into the store room. It performs no structural function. Our best guess is that it might have supported a lantern. It is not necessarily from the primary phase. This sawn juniper cross-section was cut in 1566.

Also from the ground floor, in a store room immediately south of the stable/porch, we drilled two juniper cores. The cores with last-preserved rings at 1546 (north end of the room) and 1342 (south end of the room) should be primary. We do not have a ready explanation for the difference in dates except that one of the timbers could have been reused. A juniper section from a squared header in the east wall above and north of the door could be from any time (either primary or a repair). Its last ring is 1479.

23. Afyon, Emirdag, Amorium, Step Trench 1564vv

Junipers from a mixed (but late) context in a step-trench on the north side of the acropolis at Amorium have a last preserved ring of 1564. How many rings are missing due to the fire which carbonized them we do not know. The excavator, Dr. Christopher Lightfoot, has found Ottoman material of various kinds in this step-trench (Lightfoot 1994).

24. İznik, Elbeyli, [so-called] Mara Camii 1555+vv

This roofless ruin, to which we were conducted by archaeologists Bedri Yalman and Isik Soyturk, stands in the fields near the village of Elbeyli. They say that the building is of unknown date and suspect the name. Ötüken *et al.,* (1986:269) merely call it 'Cami' and note there is a plaque from a soldier of Sultan Abdülhamid's in one wall. The overgrowth of vines and fruit trees made examination difficult and the making of even a sketch plan almost impossible. A set of oak stretchers was collected from the inner walls, and they form a homogeneous group with the last ring in 1555. Sapwood starts in 1538, so not much wood is missing from the exteriors (1538 + 26 ± 9 = 1555–1573).

25. Aksaray, Çanli Kilise, Coffin Lid 1532vv

At Çanli Kilise near Aksaray an old cedar door was reused as a coffin-lid at some unspecified time between the eleventh century and the twentieth centuries and buried in the narthex. Recently tomb-

robbers in search of treasure disturbed the grave, flinging the coffin-lid aside. Since the wood was in fine shape, we borrowed a piece of it from the Aksaray Museum in 1997, and the last-preserved ring is 1532. One has to allow for the passage of some years in which it was used as a door, after which it became a coffin lid. Then there was the burial. Now the dated door/lid is on display in the Aksaray Museum for the edification of the public.

26. Ordu, Ünye, İkizce, Eski Cami 1522vv and earlier

The Old Mosque at Ikizce is an oaken box, surrounded on three sides by a wide porch, altogether humble in appearance. We noted at the time of collection that a number of timbers were reused, some probably more than once, and we were prepared for a discrepancy in end dates. A 52-year-old informant said that his 112-year-old grandmother had told him the mosque was in its present form in her time. (The longevity of Black Sea grandmothers seems to be remarkable.) No sapwood was present on any of the samples. The end-dates for the mosque timbers are spread out over 127 years as follows: 1522, 1495,

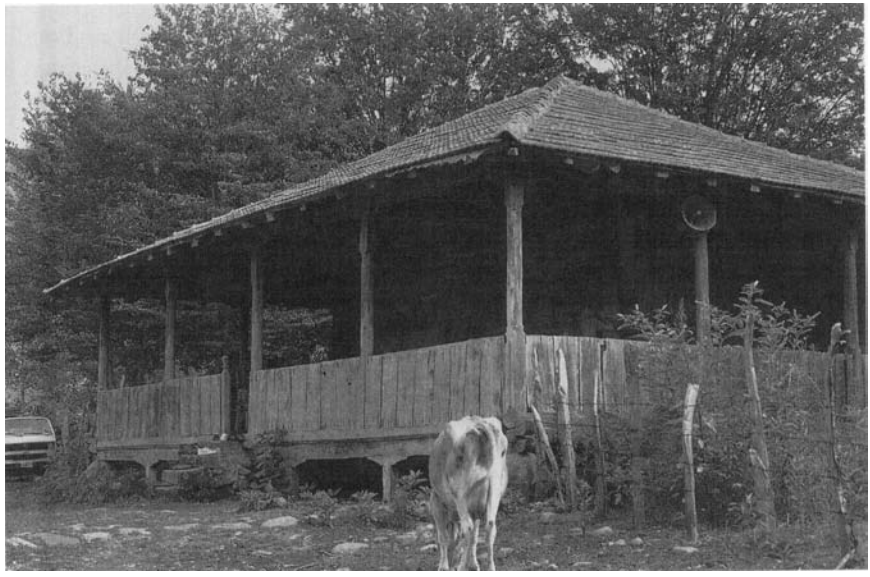

Figure 4.12. Ordu, Ünye, Ikizce, Eski Cami, exterior. Timbers have last preserved rings dating from 1395 to 1522. (P. I. Kuniholm, ADP)

Figure 4.13. Ordu, Ünye, Ikizce, Eski Cami, detail of northeast corner. Reused timbers with end dates spread out over 127 years from 1395 to 1522. (P. I. Kuniholm, ADP)

1487, 1478, 1462, 1454, 1453, 1437, 1427, 1416, 1395 (almost as bewildering as Foça, Kaleburnu, above). With a full sapwood allowance a mid-16th century or slightly later date is reasonable. The mosque is indeed *Eski,* and Grandmother was right.

27. Corinth, Acrocorinth, Unnamed Mosque 1508vv

In 1995 a whirlwind visit to Medieval Acrocorinth with its excavators Richard Rothaus and Tim Gregory yielded a bag of samples, some of which are definitely Ottoman and therefore relevant to this chapter. From oak stretchers within the walls of an unnamed and hitherto undated mosque we have 1508vv. The fundamental publication is Carpenter and Bon (1932) where their estimate for the date of the mosque is simply 'Post-Venetian.' Perhaps the researchers in the Ottoman Archives can point us toward a name for it.

28. Çanakkale, Kilid ul-Bahir Kalesi 1462B

In the center of a huge trilobe fortification at the narrows of the Dardanelles is a seven-story triangular keep (Ayverdi IV, 1974:

790–804), the oaken joists of which have in large part been cut away, leaving the stumps immured where they are pinned into the masonry. A set of samples was chainsawed from the two lower registers. All were cut in 1462, the same year cited by Ayverdi (IV, 1974:790) who says Kapudan-i Deryâ Ya'kub Bey caused it to be built in H.866–867.

29. Trikala, Kursun Camii 1453vv (many rings lost to rot)

The Kursun Camii, also known as Hg. Konstandinos, is Sinan's westernmost building and is dated 1550 by inscription. From the west porch we collected a number of badly rotted stretchers and for years tried in vain to fit them in with oak ring-sequences collected nearby from the monasteries at Meteora or the Metropolitan Church at Kalambaka. By contrast, the fits with wood from Serres are splendid. Even though the ring-sequence from the Kursun Camii is short, I am confident that we have a last-preserved ring at 1453. A good question is why Sinan's carpenters felt the need to bring wood all the way to Trikala from Thrace.

30. Didymoteichon, I. Mehmet Camii 1419v (primary) and 1439B (repair)

This imperial mosque in Didymoteichon (Dimetoka), known locally as the Vayazit Dzami because the name Beyazit appears in the inscription, was built in H.824 (A.D. 1420/1421) by Sultan Mehmet I. From niches in the west wall of the building we collected timbers with a last-preserved ring of 1419 and therefore primary. The pyramidal lead roof, clearly not the original which collapsed (Ayverdi II, 1972, Figs. 219 and 225 for a reconstruction of the original two-domed layout), is supported on enormous oak beams (some as large as 0.97 m. $\times$ 0.67m.), all of which were cut in 1439 and are not to be confused with the 17th-century veneer of planking which hides them from the viewer below (plans and sections in Ayverdi 11, 1972:136ff.).

31. Aksehir, Nasreddin Hoca Türbesi 1438vv and ????

In Aksehir six oak tie-beams surrounding the mausoleum (*türbe*) of Nasreddin Hoca and connecting six plain columns, which support a conical cap to the türbe, form an inner hexagonal peristyle around the tomb of the Hoca (Çetinor 1987). In the opinion of the Aksehir Museum

Director, Mr. Ali Meriç, the tie-beams are from an intermediate repair or renovation after a destruction of the tomb some time between the Hoca's death in the late thirteenth century (1284?) and 1905 when a drastic restoration was made to the türbe—including the addition of a marble veneer which removed much of the charm still visible in nineteenth-century photographs—and from which the türbe takes much of its present shape. An inscription on one side of the türbe reads H. 1324 (A.D. 1906.)

When the flooring around the catafalque was pulled up during the 1905 renovations, two unexpected additional tombs appeared: one of a daughter of Sultan II. Mehmet the Conqueror from the midfifteenth century or slightly later, and one other. These have been restored and are in place to the south and east of the Hoca's tomb inside the inner peristyle. Neither the shafts of the columns, which are simple cylinders, nor the caps, which are undecorated tetrahedrons, are diagnostic of any architectural style or period. The columns could be as old as Roman, and at least one had a previous use in which a door or window was inserted in a long vertical cut running the length of the column. The inner peristyle does, however, look older than the rest of the adornment, and there is a graffito on one column, says Mr. Meriç, dated A.D.1394.

No sapwood is present on any timber. The trees show an extraordinary amount of stress (average ring-width is around 30/100 to 40/100 mm.), and no two pieces crossdate with one another, even though all but one have over 100 annual rings preserved, and all ought to be part of the same constructional program. Since the columns are only 1.81 m. apart, measuring from center to center, it is reasonable to suppose that two or more of these rather short tie-beams could have come from the same tree, but given the lack of resemblance from core to core this seems highly unlikely. Given an almost perfect dendrochronological situation, i.e., six oak timbers with well over 100 rings each, it is irritating that only one piece can be crossdated—and that at 1438vv (plus an allowance for missing sapwood on the exterior)—with any components of the Aegean oak master chronology which runs from A.D.360 to present. The midfifteenth-century date might mean that the türbe was refurbished at the time of the death of Sultan Mehmet's daughter. As usual, the Hoca has had the last laugh.

32. Afyon, Demirtaspasazade Umur Bey Camii 1434vv

Four column sections, all *Pinus* sp., with stalactite caps, said to be from the Demirtaspasazade Umur Bey Camii located in what is

now the Youth Park [near the Alaca Hamam?] and which burned down in 1934, are to be found in the courtyard of the Archaeological Museum in Afyon. The inscriptional dates are three—two stone *vakfiyeler* and a *kadi sicili* in Bursa—so that one may choose H.843 (A.D.1440) or H.859 (A.D.1454) or H.865 (A.D.1461) (Ayverdi III, 1973, 211ff., and see his plan on p. 212). Two full cross-sections were sawn from these columns (Ayverdi III, p. 17, Fig. 29, and p. 18, Fig. 30, for photographs). The remaining two samples were not collected because of large, complacent rings and rot. Some shaping has removed a number of rings which accounts for the discrepancy of 6 to 27 years between the last preserved ring on AFD-4 and the inscriptional date(s).

33. Bursa, Yesil Cami 1413v

This imperial monument was completed in 1419–1420 (Ayverdi II, 1972, 46–94; Kuran, 1968, 114–119; Restle, 1976, 459–466; Gabriel, 1958; Yetkin, 1965, 225ff., and for comment on the inscription: Mayer, 1956, 75).

Oak samples were cored from tie-beams in two bays immediately flanking the entrance bay where they support spolia columns with

Figure 4.14. Bursa, Yesil Camii, alcove next to the front door. The beams have a last-preserved ring from 1413. (P. I. Kuniholm, ADP)

Corinthian capitals. Although the last preserved ring is 1413vv, sapwood begins as early as 1398, and our usual allowance for sapwood of 26 years ± 9 makes the estimated dendrochronological date of A.D.1415–1433 fit in well with the inscriptional construction date of H.822 (A.D. 1419/1420).

34. Bursa, I. Yildirim Beyazit Darüssifasi 1400B

This hospital/asylum built and endowed by Sultan Yildirim Beyazit was ruined in the earthquake of 1855, was later used for a powder magazine, and is now undergoing an unhappy restoration. The ensemble covers an area of 30 × 53 meters. Along the façades of the courtyard on three sides is a portico giving access to rooms about 3 × 4 meters each, each provided with a chimney, presumably for the patients and inmates. On the south and north larger spaces were presumably for dining, cooking, and for the work of the medical staff. Toilets were installed in the northeast corner (running water a century

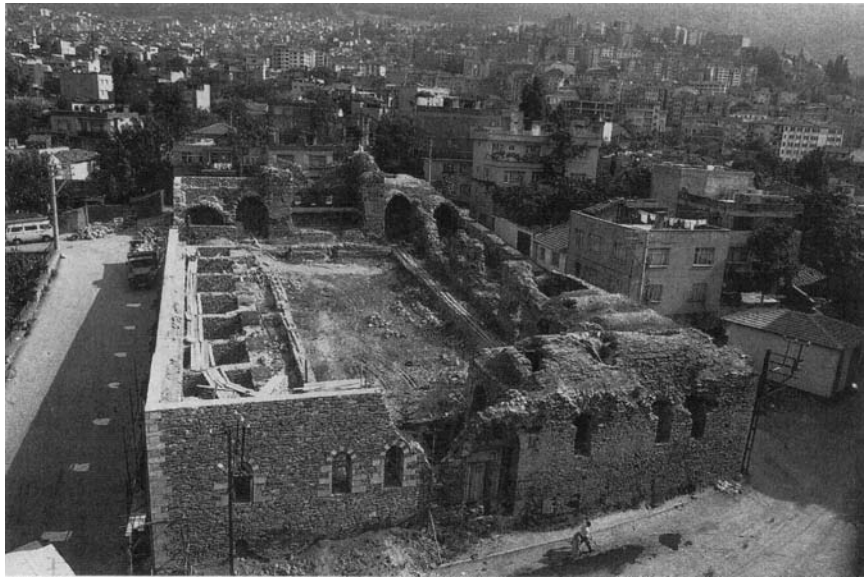

Figure 4.16. Bursa, I. Yildirim Beyazit Darüssifasi, with timbers cut in 1400. Cubicles for the patients are ranged left and right. The foundations of the interior arcade carried pipes for running water. (P. I. Kuniholm, ADP)

Figure 4.16. Bursa, I. Yildinm Beyazit Darüssifasi, detail of south end with timbers cut in 1400. (P. I. Kuniholm, ADP)

before Columbus!). These latrines were supplied with water by an underground canal which passed under the eastern wing of the construction.

According to the unpublished foundation document or *vakfiye* of H.802 (A.D.1399/1400), three doctors and two pharmacists were attached to the establishment. The text fixes their daily pay as well as the salary of the service personnel including a cook, a baker, and a dozen *serbetçi* (literally sherbet-sellers, but probably male nurses). It indicates as well how the sick were to be fed and notes how the building is to be maintained and provided with the necessary revenues or donations for operation. See Ünsal(1959, 40 and Figs. 15–17) where he writes, 'The earliest medrese at Bursa is that of Yildirim (1394): its Sifaiye is also the first Ottoman mental hospital.' (His source for this date is unclear to me.)

Further comment is in Godfrey Goodwin (1971, 47–51, and his refs. 78–82). See Fig. 42 for a plan of the complex. See also Albert Gabriel (1958, 76–77, Fig. 32). Pages 76–77 provide a combination recapitulation of the foundation document's text and a description of a long-lost bucolic Bursa (and see Gabriel's photographs). For readers

wishing further discussion on the *vakfiye,* see Ayverdi I (1966, 454) and Kuran (1968, 17–18).

Although Gabriel gives the building date as 'between 1391 and 1395,' the oak timbers in this hospital were cut in 1400, the same year as the date of the *vakfiye.* Although, no doubt, later repairs were made to the monument, none can be attested dendrochronologically. Interestingly, the dendrochronological profile for this building is so similar to that of the Yesil Cami, also a foundation of Yildirim Beyazit, that I believe the trees must have been cut from the same part of the same forest.

35. Bursa, I. Murat Hüdavendigâr Camii 1385v

In the gallery over the porch of this imperial mosque, tie-beams were drilled from five arched bays from east to west along the north facade and their responds to the north exterior wall of the mosque. Ayverdi (I, 1966, 232) discusses some of the complexities of interpreting the *vakfiye.* The mosque's building was authorized as early as A.D.1364/1365 upon the occasion of the circumcision of Sultan Murat's son, but work was not completed until 1385. The wood of the gallery tie-beams and elsewhere in the second story was not cut until 1385, suggesting that work on this mosque really did not begin until 1385.

36. Kastamonu, Kasabaköy, Mahmut Bey Camii 1366v

Shortly before our visit to Kasabaköy in 1990, the floor of this wooden mosque with ornate all-wooden interior decoration was taken up and replaced. We did not wish to interfere with any of the decorated parts of the monument, so our sampling was confined to the floor substructure. Under the planking were large parallel pine logs lying directly on the soil and adzed on only the top side where they were in contact with the boards. The imam had saved a couple of these timbers and planks from which he kindly permitted us to take sections. He also read out the inscription as H.768 (A.D.1366/1367) which is the same as our dendrochronological date (see also Bilici 1988:89 and n. 36). This handsome building (not in Ayverdi) was recently illustrated by Faruk Pekin (July 1997) and there given, without explanation, a date of 1374.

37. Tokat, Gök Medrese 1303vv

An oak tie-beam collected from the inner arcade of the Gök Medrese, now the Archaeological Museum, has a last-preserved ring

at 1303. Kuran (1969:96ff.) suggests a date slightly later than Gabriel's proposed 'near 1275.'

38. Afyon, Ulu Cami 1273v

Three column sections with stalactite caps, said to be from the Ulu Cami and replaced during earlier activities of the Vakiflar Anitlar Subesi, are to be found in the courtyard of the Archaeological Museum in Afyon. One was too rotten to try cutting, but two full cross-sections were sawn from the others. All are *Pinus* sp. AFY-2 has a terminal ring in 1273. The inscriptional date of the mosque (actually, on the minber) is H.671 (A.D.1272/73) according to Ünsal (1959:16). The building is thought to have been rebuilt in 1341. See also Sabih Erken (1983:94–100). The remaining section, AFY-1, is too erratic to be dated, and looks good neither anywhere near 1273 nor 1341 (photographs of these caps in Ayverdi III:17, Fig. 29, and III:18, Fig. 30).

39. Afyon, Cay, Yusuf bin Yakub Medresesi 1268B

The modern sign on the front door of the medrese, today a functioning mosque (although also called locally the Tas Medrese), says A.D.1258. Aptullah Kuran (1969:57–59) gives the date as H.677 (A.D.1278). He does not provide documentation for the inscription or its reading. The dendrochronological date of A.D.1268 or H.667 (see below) suggests that a 6 in the decades column might have been read as a 7. Our file photographs of the inscription do not help because a tree is in the way, and the photograph in Ötüken *et al.,* (1983:159) is not much better.

The building is reminiscent of the Ince Minareli Medrese and Karatay Medrese in Konya, among others, both in general form and in the tile decoration, only a portion of which remains. Fourteen bays surround the central domed hall, originally provided with a reflecting pool. The *iwan* on the southeast is equipped with a prayer niche, leaving no doubt as to its original intended purpose. Small cubicles on northeast and southwest were probably student rooms. As Kuran's plan shows, six of the partition walls have been removed, thereby giving the visitor the illusion that the central hall, now the prayer hall, was always flanked by two barrel-vaulted aisles.

We examined 14 bays running around the interior of the entire building as well as an additional space to the northwest, a

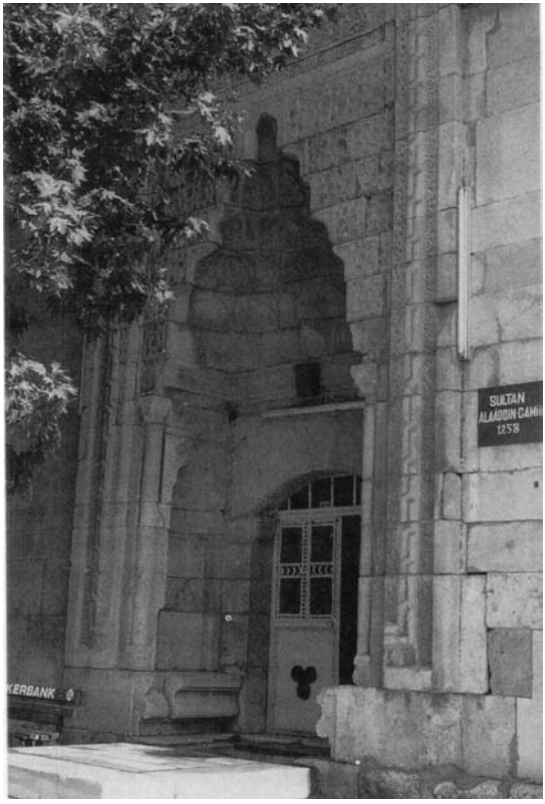

Figure 4.17. Afyon, Çay, Yusuf bin Yakub Medresesi, portal. Neither the date nor the name on the modern sign is to be believed. The dendrochronological date is 1268. (P. I. Kuniholm, ADP)

two-windowed room with elegant stone lintels, possibly the hoca's room in the middle ages as well as now (also called the 'guest-room' or *misafir odasi*), at the top of a flight of steps to the base of the minaret.

Of the fourteen openings to the central hall eleven have oak lintel systems preserved. Each lintel had an average of five beams, most of them adzed flat on top and bottom, thereby enabling us to drill along radii where few, if any, rings were missing. In only one bay has the lintel been completely removed. The *iwan* and the entrance hall were never thus equipped, although there is a lintel beam above the front

door to the entrance hall. A final lintel is over the door at the head of the stairs. A total of 51 surviving lintel beams were counted, and increment cores were taken from 46. The lintels are all at a height of about two meters above the floor and form a chain around most of the central hall. They must have been integral to the original construction of the building. All were cut in 1268 or have last-preserved rings just before 1268.

A summary of the epigraphical history of the building seems to be as follows:

1. The earliest western visitors noted the lack of a date on the inscription above the medrese's door.
2. They did notice a date of 1278 on the kervansaray or han across the street.
3. Somewhere along the line the inscriptional date for the han appears to have gotten copied into somebody's notebook as the date for the medrese.
4. This has been dutifully repeated by everybody ever since except by the current staff of the medrese who have put 1258 on a plywood sign next to the front door and renamed the building the Sultan Alaâddin Camii.

40a. Konya, İnce Minareli Medrese, Primary 1259vv

Cores taken from the top of the unbonded east-west wall of poorly dressed masonry between medrese proper and minaret, shown in Kuran's plan as primary, but which at the time of our visit we thought could have been a later insertion, crossdate well with other thirteenth-century junipers with the last preserved ring at 1259. The date of the *vakfiye* is H.679 (A.D.1280), but the medrese is supposed to have been built under the Vezier Fahreddin Ali Sahibata between 1258–1279 (Kuran 1969:54–55).

40b. Konya, İnce Minareli Medrese, Secondary Substructure 1549vv

Just under the south wall of the medrese is an east-west barrel-vaulted, subterranean chamber about 3 meters below grade. Six vertical shafts on the north side are now exposed about a meter south of the medrese's south wall. The chamber's existence was unsuspected until early in 1994, when it was broken into on the east end of the

vault. Only then were the steps up on the south side discovered and most of the lintel beams discarded and replaced. We sawed an end off the one remaining northernmost juniper lintel beam. The last preserved ring (no sapwood) is 1548 with an unknown number of rings missing from the exterior. The subterranean chamber, then, has nothing to do with the primary construction of the medrese although the north wall does line up with the south wall of the medrese.

41a. Aksehir, Tas Medrese Camii, Kadinlar Mahfili 1251v

Nine oak samples were taken from a chain-beam system running around the interior of the mosque at about waist height, half-way between the gallery and an ornamental tile band at the base of the dome. On each wall two or three stretchers, scarf-joined to each other, are supported by four notched headers at regular intervals which run through the thickness of each wall. The inscription over the front gate to the *medrese* proper says it was repaired in H.648

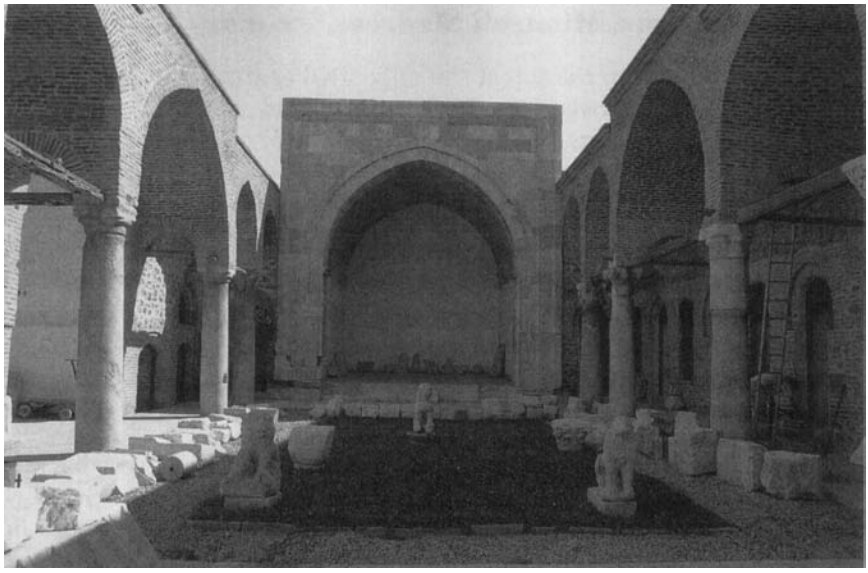

Figure 4.18. Aksehir, Tas Medrese. Tie-beams are from the 1251 repairs to the medrese. (P. I. Kuniholm, ADP)

(A.D.1250/1251). The last preserved oak ring in the *kadinlar mahfili* is also 1251, so it would appear that this part of the mosque is part of the renovations.

41b. Ground Floor, Door to Minaret, Lintel: 1251v

This is part of the same construction as the *kadinlar mahfili.*

41c. Medrese Colonnade and Student Cubicles (Unknown Number of Rings Missing) 1197vv

The sample, a squared juniper tie-beam from the arcade, has a last-preserved ring at 1197, but we are unable to determine how many rings were removed in the process of squaring it. Two fingers' thickness of wood missing from the exterior of the timber would add up to about 50 rings and therefore would enable us to link this to the 1251 renovations, but this is only guesswork on our part.

42. Konya, Sahipata Mescidi = Konya, Tahir ile Zühre Mescidi 1233vv

Two fragmented samples collected from the north entrance door to the main room by the ODTÜ Architectural Faculty's restoration team were given to us with an estimated date of 1250±, although their source of information was not specified. The date for the mescid in Kuran (1969:63) is A.H.678 (A.D.1279).

43. Beysehir, Kubadabad Sarayi (Sultan Alaeddin Keykubad) 1231B

Thirteen juniper pilings from the north end of this building, next to the sandy gravel of the shore of Beysehir Lake, excavated by Professor Dr. Rüçhan Arik (1986), and earlier investigated by Katharina Otto-Dorn and Mehmet Önder (1966, 1967), were all cut in 1231 during the lifetime of Sultan Alaeddin Keykubad (1220–1236) whose summer palace the Kubadabad Sarayi is supposed to have been.

44. Sivas, Sifaiye Medresesi (I. Izzeddine Keykâvus) 1215v

The inscriptional date is H.614 (A.D.1217), so a dendrochronological date of 1215 from the courtyard wall next to the entrance suggests

we have part of the primary construction (Kuran, 1969:67, 99–104, plan p. 103, section p. 109).

46. Samsun, Çarsamba, Yaycilar Camii 1204B, 1205B, 1211vv (repair?)

This is an oak box-like structure, smaller than almost anything on this list except perhaps for some of the small Black Sea mosques in #1 above. I am not aware of any published report on this building. None of the four *imams* (the mosque serves four villages) knows of any record that might shed light on its history. On the east door of the *son cemaat yeri* is written in pencil 'Miladi [A.D.] 1243' in Latin script (therefore since the Turkish Revolution) by an unknown writer. There is no Hicri or Rumi date.

Two of the primary timbers were cut in 1204 and 1205 respectively, thereby preceding the traditional advent of the Turks to the area by one or two years. The 1211vv timber (plus an allowance for missing sapwood) ought to have been cut around 1237 (or a few years later), some 31 years after the Turks arrived. The question is: does this last timber date from a later building phase, or is it a repair, or is the pencilled date for some improbable reason correct?

46. Afyon, Sincanli, Boyaliköy Medresesi 1206B

The medrese at Boyaliköy is in Kuran's 'Kapali-Avlu' class. Estimates of its date range from as early as late eleventh century, to 'before [or around] 1224', to very early in the thirteenth century (Kuran, 1969, 44-46; Ötüken *et al.,* 1983, 150–155). A neighboring *türbe* has an inscriptional date of 1210, and it seemed reasonable to suppose that the date of the medrese could be from that approximate time. Because of the assortment of proposed dates we collected cores from all 37 oak timbers in the medrese. The bark date for this building is 1206 or four years before the date of the türbe.

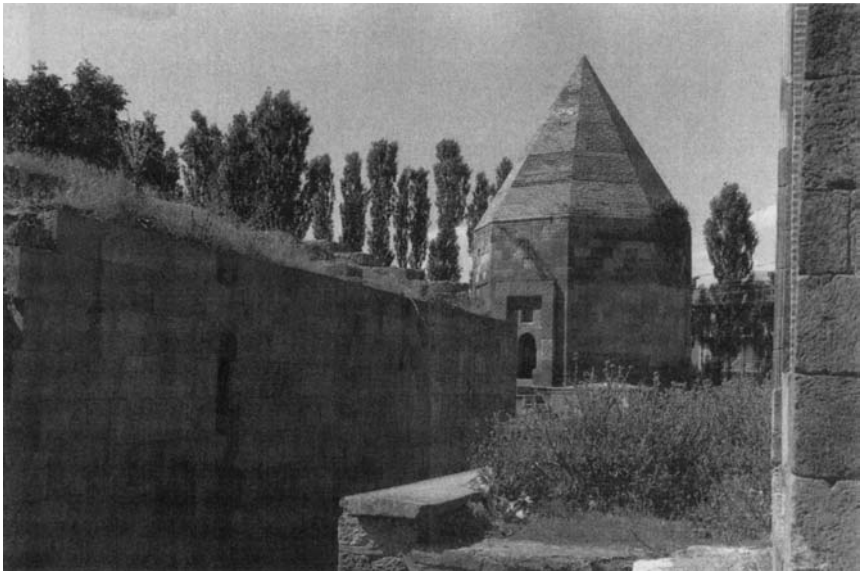

Figure 4.19. Afyon, Sincanli, Boyaliköy Medresesi, exterior. The dendrochronological date for the medrese is 1206. The inscriptional date for the türbe in the background is 1210. (P. I. Kuniholm, ADP)

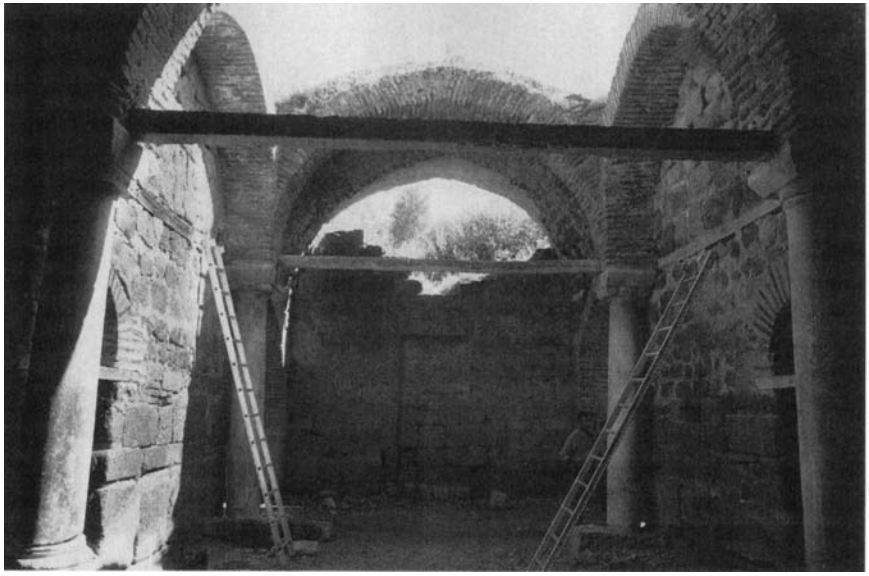

Figure 4.20. Afyon, Sincanli, Boyaliköy Medresesi, interior. The oak tie-beams, wall-stretchers, and door-lintels were cut in 1206. The "beam" in the foreground is a poured concrete replacement. (P. I. Kuniholm, ADP)

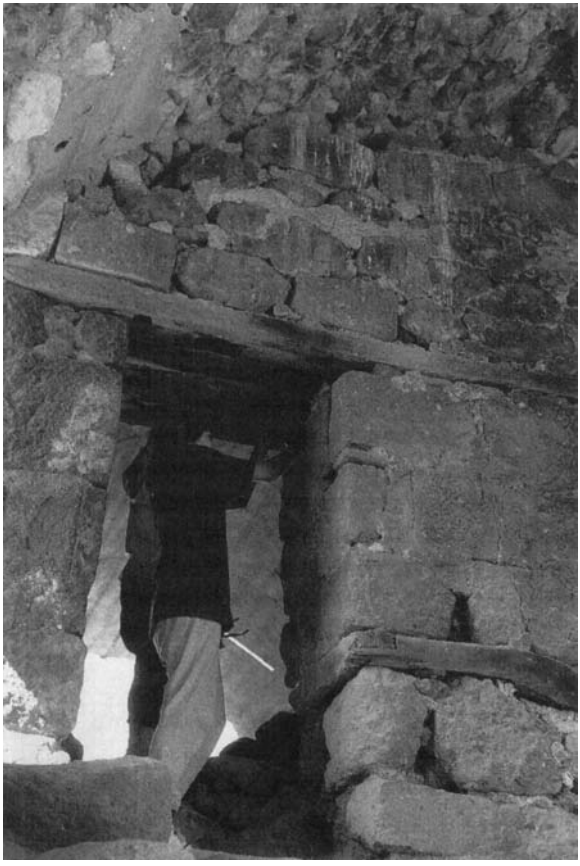

Figure 4.21. Afyon, Sincanli, Boyaliköy Medresesi, second-story door lintel. All the oak lintel-beams were cut in 1206. (P. I. Kuniholm, ADP)

47a. Samsun, Çarsamba, Mezarlik (Gökçeli) Camii, Primary Phase 1206B

47b. Samsun, Çarsamba, Mezarlik (Gökçeli) Camii, Revak (Porch) 1335v

The large wooden mosque in the east graveyard at Çarsamba, was sampled in 1991 at the request of the Samsun Vakiflar Bölge Müdürü. The fundamental publication which we did not see until several years later is by H. H. Günhan Danisman (1986,135-144, Plates 87-95, and

see below). All we had upon our arrival was information from Hüseyin Özosma, İmam Hatip, Çarsamba Mezar Içi, 'Bu cami tahmini olarak Rumi 592 [= A.D.1176] tarihinde yapilmistir.' He did not amplify on the source for his *tahmin.*

The mosque is a barn-sized log cabin or rectangular wooden box of oak (locally known as *pelit*) with the mosque divided from the *son cemaat yeri* by a crosswall with its ends notched into the east-west long walls. On north, east, and west some trimming of the ends has been done, but on the south the ends of the long walls project in random fashion up to a meter beyond the corners. An unusual 'truss' (which seems to have little or no structural function) runs north-south, dividing the mosque in two. The size of the boards in the mosque is impressive, typically 0.55m. × 0.15m. × 13.06m. for all the exterior members of the walls of the mosque and revak. The size of the trees exploited was equally impressive. Since most boards are sawn or split radial sections of large trees, as can be readily seen on the four corners of the mosque and on the cross-wall, the original tree diameter was often over one meter. Oaks like this are almost impossible to find in Turkey today.

The hip roof slopes down on west, north, and east to a porch which runs around three sides of the mosque. The rafters of the porch continue the line of the roof. Several appear to be later additions to the original construction.

From the mosque proper a terminal ring of 1206 is preserved. The wood was cut after the end of the growing season of 1206 and before the beginning of the growing season of 1207 and, on the basis of standard Turkish carpentry practice, presumably used immediately thereafter. We were unable to find other pieces with the full sapwood preserved, so additional sampling would not have taught us much.

All the timbers (rafters) we sampled from the north and west porch were cut in 1335 or at the latest a year or two thereafter. Another look at the mosque in 1992 confirmed that the 1335 porch is simply a repair of an earlier porch construction. Cuttings show clearly where the earlier porch adjoined the mosque walls. Not one of the eight dated porch rafters is early.

Danisman speculates on the date of the mosque and proposes a date in the 1100's on the basis of one tombstone, the reading of which was disputed at the time, and which can no longer be found. (This was possibly the foundation for the Imam Hatip's claim mentioned above.) His interpretation poses a problem since the Turks did not arrive on

the Black Sea coast until 1206 when I. Giyasettin Keyhüsrev opened the trade route from the Anatolian interior. How, in other words, could we have a Turkish mosque in Çarsamba when there were no Turks there? The dendrochronological date of 1206 for the construction of the mosque coincides neatly with this historical event.

48. Konya, Selçuklu Sarayi (II. Sultan Kiliçarslan) 1174v

In 1994 we collected four headers from the south face of the substructure of Sultan Kiliçarslan II's 'kiosk' in Konya. Upper-story

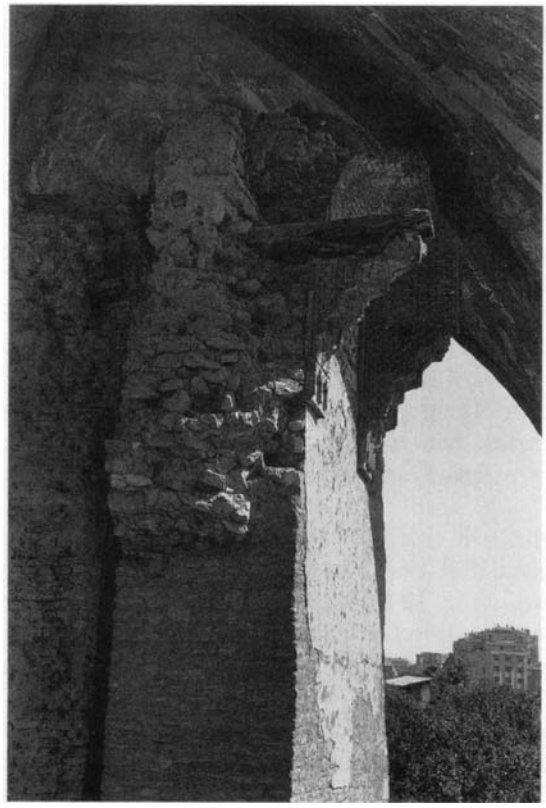

Figure 4.22. Konya, Selçuklu Sarayi. Lower portion of the tower. Last preserved ring is 1174. (P. I. Kuniholm, ADP)

Figure 4.23. Konya, Selçuklu Sarayi. Another view at the lower portion of the tower. Last preserved ring is 1174. (P. I. Kuniholm, ADP)

timbers just under the modern concrete parasol which protects the structure from the elements were judged to be too unstable for sampling. Since we have last-preserved rings of 1174 and 1173 on two of our three datable pieces, both untrimmed, and 1167 on the third with a few rings missing, we think the construction date must follow closely upon 1174, right in the middle of Sultan Kiliçarslan II's reign (1156–1192; see Aslanapa 1990:299–301 and Figs. 291 and 291a; Kuran 1965:155ff.). The photograph in the latter shows the state of the tower when its upper story was still extant, i.e., when it was twice as tall as it is today.

ACKNOWLEDGMENTS

The Malcolm and Carolyn Wiener Laboratory for Aegean and Near Eastern Dendrochronology is supported by the National Endowment for the Humanities, the National Science Foundation, the Malcolm H. Wiener Foundation, the National Geographic Society, the Samuel H. Kress Foundation, the Wenner-Gren Foundation for Anthropological

Research, and individual Patrons of the Aegean Dendrochronology Project. From 1973 to 1976 this project was supported by the American Research Institute in Turkey, and from 1976 to the present it has been supported by Cornell University. For fundamental permissions we thank the responsible authorities, both civil and religious, in the countries where we have collected specimens. We also thank the excavators of each site who kindly provided both material and discussion of the problems of each excavation.

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5

Entangled Objects from the Palestinian Past

Archaeological Perspectives for the Ottoman Period, 1500–1900

Uzi Baram

INTRODUCTION

Bernard Lewis opens *The Middle East:* A *Brief History of 2000 Years* with a description of a modern café scene (1995:3):

> . . . at almost any hour of the day you may find men — usually only men — sitting at a table, drinking a cup of coffee or tea, perhaps smoking a cigarette, reading a newspaper, playing a board game, and listening with half an ear to whatever is coming out of the radio, or the television installed in the corner.

Lewis presents all this material culture—the radio, the chairs, the tobacco, the coffee, the clothes the men are wearing—as symbols of the 'immense and devastating changes' which came out of the West over the last five centuries to change the Middle East in modern times (1995:3).

This analysis marks a dominant interpretation of the recent Middle Eastern past. The recent past encompasses the era of Ottoman imperial rule, roughly the fourteenth through early twentieth centuries. According to the dominant paradigm, after the rule of Süleyman the Magnificent, the Ottoman Empire falls into decay and decline, becoming the 'sick man' of Europe. This image is one of stasis with the only source of change being Western European penetration of the empire. This story line implies that 'reaction, rejection, and response'

UZI BARAM • Division of Social Sciences, New College of the University of South Florida, Sarasota, Florida 34243.

A Historical Archaeology of the Ottoman Empire: Breaking New Ground, edited by Uzi Baram and Lynda Carroll. Kluwer Academic / Plenum Publishers, New York, 2000.

to the West (Lewis 1995:17) were the only pathways possible for the Middle East, that the Middle East, its peoples and rulers, were passive or incompetent in the wake of Western triumph (e.g., Kinross 1977, Goodwin 1998).

As Lewis (1995) implies, objects are an important component in any interpretation of this historical process. Objects are typically used to illustrate the triumph of the West in the Middle East. In a recent popular history of the empire, Jason Goodwin (1998:306–308) points to clock towers as evidence of Ottoman exhaustion in the competition with the West. That continually renewed interpretation needs to be scrutinized. In this paper, I explore some of the complexity in the material culture in order to rethink that narrative. My argument is based upon the ambiguity (Leone and Potter 1988) between archaeological materials and the historical narrative. The focus on common examples of material culture found in the archaeological record is meant to illustrate the potential of an archaeology of the Ottoman period for one small corner of the former imperial realm. Rather than seeing the objects only as reflecting the changes, the archaeological analysis can conceptualize them as active components in the social transformations of the modern era.

This analysis and interpretation of artifacts, I will argue, can challenge the dominant paradigm regarding the Ottoman past. I suggest that the archaeological remains of certain commodities are evidence for an entanglement of the region within global processes of change rather than a passivity for the peoples of the Ottoman Empire. Rather than a three- or four-century-long period of decay and decline, the region's archaeological record has evidence of accommodation and resistance to Westernization. The challenge has been to locate, organize, and interpret meaning for the material remains from the Ottoman centuries. The implications of such interpretation for understanding the Middle Eastern past conclude this chapter.

CHARTING THE TERRAIN OTTOMAN PALESTINE AND THE PALESTINIAN PAST

Several archaeologists during the late 1980s (Glock 1985; Kohl 1989; Silberman 1989) called for an archaeology of the recent past in the Middle East. The Middle East is a contested zone in global history, one of the most contested geographic components of the region is the land which is today the State of Israel. Of Israel's historical time periods, the recent past is the subject of the harshest debates and is

the most misrepresented and even silenced in popular discourse. Furthermore, for a land which has been overturned in nearly every corner with the archaeologist's spade, the recent past is the least understood archaeologically. As Silberman (1989:233) phrased it: 'Just as the story was beginning to get interesting . . . ' with the processes of change and transformations presented from the beginning of humans to the rise of civilizations to the doorstep of the present '. . . the archaeological picture went blank.' The discontinuity leaves out the recent past.

The several centuries before the twentieth century are categorized archaeologically as the Late Islamic period. The Late Islamic period stretches from the end of the Crusader era (i.e., the end of Christian rule) to the advent of the twentieth century (with political control of the land, first with the British, then with the State of Israel). The chronological era includes two political periods: the Mamluk and the imperial rule of the Ottoman Empire.

The search for the earlier strata, particularly of the Bronze and Iron Ages, was meant to locate glorious pasts for newly emergent nationalities (see Silberman 1989), leading commentators or Israeli archaeology to label it nationalist (e.g., Trigger, 1984:358–359) due to its focus on selected aspects of the archaeological past. This archaeological perspective converged with the *Orientalist* notions for the time period and the empire that ruled Palestine until the early twentieth century. The peoples of the empire, and particularly the people of Palestine in the centuries leading to the advent of the present, are assumed to have been locked into stasis. When transformations in history were located, diffusion and external stimuli was given as the cause. Agency is seen as limited to the West and to Europeans; this has been a harmful and misguided conceptualization. *Orientalism* intersects with primordial notions of ethnic identity and with the political uses of the past to degrade the Ottoman centuries or to remove them from scholarly research. The constructed void in the historical narrative allows the social and historical forces that influenced, or even created, the ethnic and national identities of peoples in the region to be ignored. That negation encourages understandings of identity as fixed and changeless. The primordial stance contributes to the social divisions found across the eastern Mediterranean, for example, the supposed timeless division and rivalry between Jews and Arabs.

This past, by necessity, is disturbed during the search for a distant, deeper past. Yet its artifacts and strata have been avoided, ignored, or even bulldozed away. The avoidance of this archaeological record is tied to erasing the Palestinian past, a colonialist endeavor in archaeology which Trigger (1984:360–363) describes as an attempt to

demonstrate that peoples were 'static. . . and lacked the initiative to develop on their own.'

Avoided, ignored, or misrepresented, the Ottoman period for Palestine (1516–1917) is thus a contested era. In the vast sweep of prehistoric to Biblical to the Classic Eras, archaeologists present the dynamics of change and transformation. But for the centuries of Ottoman rule are seen as an exception, either as desolate or passively engulfed by Western triumph. The connection to the dynamics of modernity as ignored. This understanding has only recently started to change.

The Ottoman Empire's rule over Palestine is not a simple tale of conquest, decay, and loss to European control. Ruled by the Mamluk Empire, Palestine along with Greater Syria, fell to the army of Sultan Selim in 1516. His successor, Suleiyman the Magnificent, ordered the construction of the walls around Jerusalem (the present-day fortifications around the Old City). Over the Ottoman centuries, local potentiates (Fakhr-al-Din in the seventeenth century, Zahir al-Umar in the eighteenth century) controlled northern Palestine in rebellion against the Sultan only to be crushed by the imperial army under Napoleon; rebellions arose in the cities (for example, in the early part of the nineteenth century in Jerusalem), Europeans attacked the coast of Palestine (the French, the Russians in the last quarter of the nineteenth century) only to be thwarted; and the local inhabitants rose against Egyptian occupation in the 1830s, not to support Istanbul but to throw off foreign occupiers of their land. During the First World War, the British conquered Jerusalem and claimed Palestine under a League of Nations Mandate, but the end of four hundred years of Ottoman rule did not mean that the structures and influences of that empire suddenly dissolved.

The details of these events and transformations are slowly coming forward as a new generation of scholars explores the Ottoman past, Historians are mining Ottoman archives for insights into the political, economic, and social changes in Palestine over the sixteenth through early twentieth centuries as well as to understand the emergence of Palestinian peoplehood (e.g., Cohen 1973; Ma'oz 1975; Kushner 1986; Gilbar 1980; Cohen 1989; Kark 1990; Kimmerling and Migdal 1993; Divine 1994; Singer 1994; Doumani 1995; Ze'evi 1996; Yazbak 1998). Aspects of the political dynamics between Istanbul and Palestine, insights into social and economic life for the peoples of Jerusalem, Nablus, and other cities of the region, and into the decisions made by the elite of the region are being brought to light.

Even with this new research, much of the Palestinian past during the Ottoman period is left in the shadows of history. As Edward Said (1979:xii–xiii) notes:

> One of the features of a small, non-European people is that it is not wealthy in documents, nor in histories, autobiographies, chronicles, and the like. This is true of the Palestinians, and it accounts for the lack of a major authoritative text on Palestinian history.

But even if the documents were plentiful, one of the foundations of historical archaeological research (see Baram and Carroll, this volume) is an appreciation for the peoples who do not enter the documentary record. The archaeological record can open up questions and issues regarding the groups (such as women, nomads, the urban poor, and the rural villagers) who are mostly ignored by the recorders of history. Some of the archival research by the fore-mentioned scholars intersects with the remains of the physical landscape of Ottoman Palestine. Archaeologically, even more is possible. The connections between the processes of changes from the past to the doorstep of the present can use several types of bridges. Archaeological research can work in conjunction with archival research, and it can bring forward material remains for interpretations in their own light.

Doumani (1995) provides an example of archival research focused on the material world, a perspective from commodities to tell stories about life and change in Ottoman Palestine. Doumani (1995) traces the production of textiles, cotton, and olive oil and soap to shed light onto the semi-autonomous region of Jabal Nablus during the second half of the Ottoman period in Palestine (1700–1900). The changes in production in Jabal Nablus are used to illustrate the integration of that mountainous region with the urban centers of Beirut, Jaffa, and Damascus and to the global processes of capitalism. Doumani is concerned with surplus appropriation, regional and international competition, and distribution as seen in local and regional trade networks. But what of the things that people consumed? What of the decisions and actions of the people of Palestine during the Ottoman period? Archaeology should provide insights and data for addressing those questions.

For Palestine, new historical research is uncovering information on the people of urban areas or based on information from an urban perspective (e.g., Yazbak 1998). Most of the rest of other disciplinary research (for instance, art history) on Islamic Palestine, as Glock (1994) notes, focuses on Jerusalem. As a site of archival information, this is not surprising. Yet if the goal of studying the Ottoman past is

to better understand the roots of the present, emphasis needs be placed on rural life and on the people who did not enter the documentary record. Archaeology can shed light onto just such people who rarely enter the documentary record, but who left us insights into their lives through their materials things.

ARTIFACTS OF THE MODERN WORLD

The Material Culture of Modernity

A diffusionist approach in Middle Eastern archaeology (e.g., Kark 1995) situates the consumption of Western goods as a symbol of and/or illustrates the actual demise of the Middle Eastern way of life. New goods are seen as opposed to traditional social life. Since stasis marks the Ottoman centuries, the argument seems to go, smoking tobacco, drinking coffee and tea, wearing tailored clothes, using jerry cans to transport water, reading newspapers, led the peoples of the empire to become agents of modernization and Westernization. Commodities and other global goods then consumed the Ottoman Empire. Modernity is equated with Westernization.

The question of modernity is contested for Middle Eastern history. For Hourani (1993), the modern period consists of the last two centuries. For the changes during the nineteenth and twentieth centuries 'have been so great and have gone so deep that they can be regarded as forming a new and distinctive period in the history of the world' (Hourani 1993:3). Within Palestinian historiography, the dating for modernity, as with many issues surrounding Palestine, is fiercely contested in terms of the benchmark for the Israeli-Palestinian conflict (Doumani 1992:5). The transformations of the last two centuries are clear; yet in order to trace the teleology and context for those changes, we need to look even earlier. Hodgson's (1974) use of the sixteenth century is most productive. As with any social transformation, the benchmark date should be seen as part of a process rather than an event. By using a perspective starting from the sixteenth century, some of the questions regarding the introduction of modernity for the Middle East and the connections between the region and global processes can be opened up. And the use of the sixteenth century conveniently opens up the entire period of Ottoman control over Palestine for study as a unit. The fit is excellent and useful for comparative purposes (for instance, to compare the processes and material events of the Middle East to southern Africa and the Americas—places with long

established historical archaeological investigations of the roots of the modern).

One aspect of the search for the roots of the modern Middle East requires rethinking the material world. The dominant paradigm on the Ottoman period assumes stasis for social life. And much of the material world does demonstrate continuities (Baram 1996:73–100). But continuities are not the same as unchanging social life. The urban settlement pattern of Palestine from the commencement of the Islamic age until the nineteenth century does not demonstrate much change; for the countryside, a cycle of retreat and expansion marks the rural settlement pattern (Wagstaff 1985). Continuity also marks the architecture—a similarity of style and structure is found in Palestinian houses (Hirschfeld 1995). The archaeology, for the most part, reflects those continuities. The disruptions that lead to rich archaeological materials in the Bronze and Iron Ages and the Classic Periods are not found for the Ottoman centuries in Palestine (with the exceptions of shipwrecks, see for an example, Ward, this volume). Yet, that continuity does not imply stasis for the region; in the artifacts and commodities of the region there is clear evidence of change. The sources of those changes, though, have traditionally been placed with external forces. The assumption that very little changed, and what changed was externally driven can be challenged by examining variation in classes of artifacts.

The evidence of a changing cultural landscape can be located by archaeology, but since few archaeologists have interpreted the remains from the Ottoman period, a self-fulfilling prophecy occurs—nothing interesting is assumed and nothing is discussed for material culture in its own right. Focusing on one class of material culture, I raise a critique against this notion with implications for archaeological understandings of the recent past and for the emergence of modernity. I hope to illustrate the significance of Ottoman-period artifacts and ultimately of the Ottoman era archaeological record.

Here, I restrict the discussion of material culture to the material correlates of modern, global commodities. My approach and interpretations toward the Ottoman past come from the history of commodities: tracking the origins, appropriation, and the patterns of use of material culture allows insights into the consumption of commodities. Examining artifacts in terms of consumption opens a window on the relationship between global power relationships and societal tensions. My data sets and analyses are focused on excavated materials from the land which is today northern Israel, one small corner of the territory that was the Ottoman Empire, but the

conclusion should be useful to a larger analysis of the material culture of a region.

Global Movement of Commodities

One piece of evidence for the transformation in commodity consumption, particularly the consumption of pleasures, in the Middle East comes from comparing two prohibitions; a simple change reflects the impact of the larger global transformation. In 1516, as the Ottoman army attacked Syria and Egypt, the Mamluk Sultan decreed a ban on all excesses—wine, beer, and hashish. In 1633, on the pretext of preventing urban fires caused by coffeehouses, the Ottoman Sultan banned coffee, opium, and tobacco. Both decrees against these types of amusements were ineffective. The contrast in pleasures points to a shift in recreation for the peoples of the region. The new pleasures-coffee and tobacco—constitute habits of modernity. We can see their impact on the cultural landscape through the numerous *Orientalist* portrayals of the Middle East during the Ottoman centuries. The archaeological question revolves around the timing, spread, and embeddedness of these habits. When and by which agents did the modern commodities enter the Middle Eastern landscape? Did the modern commodities trickle into use or did Western commodities flood over the region (sensu Paynter 1988:418)? And was there social differentiation with the consumption of these items?

Commodities are goods which 'can be compared and exchanged without reference to the social matrix in which they were produced' (Wolf 1982:310; see also Orser 1996:110–117). With the rise of global capitalism, the scale of commodity production increases greatly. People consume commodities whose origins and production are very distant from their own social context. Commodity exchange existed before capitalism and exchange of commodities continues to exist outside of the capitalist social formation, but with capitalist hegemony, commodities impact and transform people's lives from long distances (Wolf 1982:3 10–11) and the production and consumption of commodities become increasingly alienated from each other. With the emergence of modernity, there is an acceleration of the circulation of goods and peoples around the globe.

Commodities are more than the product of supply and demand. From the social history of commodities we can find that they are not static; objects pass through social transformations, undergo exchange and use, and mediate multi-level relationships within their social

context (Thomas 1991:27–28; see also Orser 1996:107–130). In other words, commodities are polysemic and are continually socially transformed.

Commodities of Palestine

Throughout the late Islamic period (1200–1900 CE), Palestine produced such commodities as sugar, soap, cotton, barley, and oranges for a regional and then hemispheric market. Located at the cross-roads of Europe, Africa, and western Asia, Palestine was involved in imperial and global distribution networks. Though production of these crops, for example cotton, left their mark the region (Owen 1993:175–179), the only one that remains a symbol of production in Palestine is the Jaffa orange.

With a long history of commodity production, distribution, and consumption, the transformation to modern commodities comes with the global pleasures. Wolf (1982:310) posits a trilogy of drug foods—sugar, coffee, and tobacco—as emblems of modern life. Sugar predates modernity in Palestine both in its production and consumption; tobacco is produced in the early modern period in Palestine and is consumed throughout the period; coffee is not produced in that land but is consumed. A shift away from sugar production and to increased consumption of sugar, coffee, and tobacco begins after the sixteenth century.

Production is not the only aspect of commodities that has impact on people's lives. The implications of the modern commodities transverse production, distribution, and consumption of goods. The archaeological record has evidence for investigating the class process of production, distribution, and consumption of labor and goods. We see production in the archaeological record; for example, sugar production left massive numbers of ceramic cones in Jordan and Cyprus. Distribution is seen in the network of roads, ports, *Khans,* and other aspects of transportation across the landscape. The placement of markets, within urban areas and on major crossroads, is also an element in distribution of commodities. Production and distribution do not exist as independent processes. Any changes in production and distribution need to be understood as overdetermined by changes in consumption.

The Archaeological Evidence for Ottoman Palestine

What is the archaeological evidence for the introduction, rise, spread, and decline of commodity consumption in this region? In light of the lack of sustained archaeological interest in the recent past, we

are fortunate to have pockets of information from the archaeological record.

The significance of the Ottoman period artifacts has not been obvious to traditional archaeological research. The archaeological record for the Ottoman period is uneven, unsorted, and uninterpreted. There exists a discontinuous record in the ground associated with Ottoman rule over Palestine; as stated earlier, archaeologists have more often bulldozed than analyzed that record. The components of the archaeological record when excavated are left piecemeal and disconnected from the rest of archaeology and from history. Yet, even that piecemeal evidence is useful when the research questions are broad enough. By fortune, one of the classes of Ottoman period material culture that archaeologists consistently retain from their excavations are the material correlates of one of the modern commodities: the material correlates to the commodities banned by the sultan in the seventeenth century, the clay tobacco pipes (see Table 5.1 for collections examined by the author and in various publications; see Baram

Table 6.1. Collections of Clay Tobacco Pipes in Israel

Location	Number of artifacts
Mamilla Excavation—Jerusalem	81
Meshorer Collection—Jerusalem	62
Hasaniyyeh—Old City of Jerusalem	28
Citadel of David—Old City of Jerusalem	7
Morasha Neighborhood—Jerusalem	5
Rockefeller Museum collections	21
Ramat Hanadiv Survey	123
Tiberias—Yardon Hotel Excavations	34
'Anim Excavations	3
Khirbet Khamase Excavations	6
Khan Minya Excavations	16
Total examined	386
Publications	
Wightman (1989)—Jerusalem	95
Avissar (1997)—TelYoqne'am	24
Ben-Dov (1982)—Jerusalem	11
Ziadeh (1995)—Tell Taanach	10
Stern (1993)—Tel Dor	5
Stern (1997)—Akko	3
Pringle (1986)—al-Burj al-Ahmar	2
Total from publications	147

SOURCE: Modified from Baram 1996: Table 3.

1995 for collections in Cyprus). But beyond descriptions, little has been done with these objects.

Archaeological investigation into the Ottoman period is in its infancy. Only since the 1980s, with massive salvage operations throughout Israel and a new generation of archaeologists imbued with processual and post-processual archaeological theories and influenced by the tenets of anthropological archaeology, has attention been drawn to the artifacts of the Ottoman period. The attention given typically consists of a constricted discussion of the history of the area or brief mention of finds isolated from any larger context than the excavation unit. These starts of an archaeology of the land that is today Israel is seen in recent publications. For instance, Rast (1992:200–201) interprets the period in terms of achievements during a period of decline. Levy (1995) provides chapters on Palestine in regional and global contexts. These are useful beginnings for addressing change during the Ottoman period in Palestine, but corrections need to be made to the artifacts themselves.

The results of these recent investigations into the Ottoman past are mostly unorganized collections of reports, collections, and analyses which have not yet been systematically interpreted. Unlike earlier time periods, few debates nor discussions have been created by the remains from the Ottoman period (for an exception, see Ziadeh-Seely, this volume). The significance of this archaeological record is in need of support if there is to be more than antiquarian interest in these modern objects.

The artifacts for the Ottoman period are significant for clues regarding the consumption of certain goods. The appearance in the archaeological record of coffee cups and tobacco pipes indicates a change in people's consumption. The new commodities of coffee and tobacco shaped the Middle Eastern social habits and its cultural landscape. Their archaeological remains provide insights into the origins, spread, and appropriation into society of the habits of drinking and smoking these stimulants.

ENTANGLED OBJECTS

Entanglement

Archaeological investigations often play dependent roles for historical research. For the archaeology of the Ottoman Empire, the archival and other documentary insights of historians will guide the

research agendas, questions, and projects of archaeologists. The details from the skilled hands of historians have and will point to crucial questions and insights. Yet on an anthropological level, archaeology can provide an insight into social life. The bulk of the studies that focus on the Ottoman Empire employ such terms of 'penetration' and 'incorporation' to explain the interaction that led to modernity in the Middle East.

Another imagery comes from an anthropologist concerned with material culture. Thomas' (1991) analysis of small scale societies in the south Pacific during initial European expansion, is useful for understanding consumption and its implications for global power inequalities.

Thomas (1991) moves away from imagery of European penetration into the region in order to argue that the incorporation of regions into the world system was based upon the entanglement of objects. The center of this argument revolves around the concept of the gift in the South Pacific islands. Thomas begins the discussion with a perspective that envisions things as having histories: he explores the biographies of objects. He stresses the point that objects are not only what they are made to be; objects have meaning for how they are used. By examining the indigenous appropriation of European things, and the European appropriation of indigenous material culture, he presents a transcultural history for the islanders, one that has the peoples actively engaged in the process which ties the region into the political and economic structure of the modern world system.

Incorporation is equally problematic for understanding social relations. Thomas (1991) envisions the process (the metamorphosis of trade relations into colonialism) as entanglement. He bases the argument on exchange (through the classic anthropological examples of reciprocity in the South Pacific). He envisions the trade between Europeans and the peoples of the South Pacific as uneven, discontinuous, and as a component of different strategies of a local elite to create and maintain its political position. There was no teleological or necessary development from initial contact to dependency and colonial control; the incorporation of goods needs to be understood within the dynamics of local societies.

The move away from the imagery of penetration is important for arguing an agency within the social processes of the last several centuries. The link to agency comes from consumption. Rather than being driven by production or by external forces, the material patterns for the modern commodities can be seen in a more meaning manner as related to the changing consumption habits of Palestine.

Patterns of Material Changes: A Case Study

The clearest example for arguing for the material changes over the Ottoman centuries comes from clay tobacco pipes (see Figure 5.1 for 3 examples; also Ward, Figure 7.6, p. 195, this volume). These ubiquitous items are plentiful all over the archaeological record of the post-Columbian world. In the land which is today Israel, archaeologists have often uncovered large numbers of clay tobacco pipes as they search for the more distant past. For a number of reasons, but mostly due to their artistic merit, of all the Ottoman period artifacts, clay tobacco pipes are the most likely to be retained by the archaeologist. Several large and numerous small collections of these archaeological pipes are stored with the Israeli Antiquities Authority.

As part of a larger project, those clay tobacco pipes collections were organized into chronological typologies and correlated the patterns of material changes to social historical processes (Baram 1996). Those patterns of material changes uncover some of the social processes that impacted Palestine during the Ottoman centuries.

The patterns are built upon both archaeological and documentary sources, sources that tell related but slightly different stories about the origins and spread of this commodity. A text mentioning tobacco in Istanbul in the 1590s is the earliest documentation of the commodity being used in the region (Goffman 1990). According to such documented accounts, the Ottoman Empire received tobacco via the British. The Turkish term for tobacco is *tütün,* a term coming from the English. The archival record points to the turn of the seventeenth century as the starting point for tobacco use in the Ottoman Empire. Also significant is the capitulatory treaty of 1612 with the United Provinces; the Dutch used the treaty as an opportunity to launch tobacco into Turkish social life (Kinross 1977:329). From the historical sources, the origins of tobacco seems clear.

Yet, it is possible that tobacco was smoked before those documented accounts. The material evidence points, not to singular Western European agents of introduction, but to a diffusion of tobacco from West Africa through Egypt and up through the eastern Mediterranean provinces of the Ottoman Empire. The early tobacco pipes in the Middle Eastern part of the empire (rather than in Istanbul) look surprisingly similar to examples in West Africa.

The reason may be quite simple: the shape and designs of clay tobacco pipes in the Middle East originated in the styles from West Africa. The English-style kaolin pipe probably influenced initial styles in the imperial center of the Ottoman Empire. A focus on the

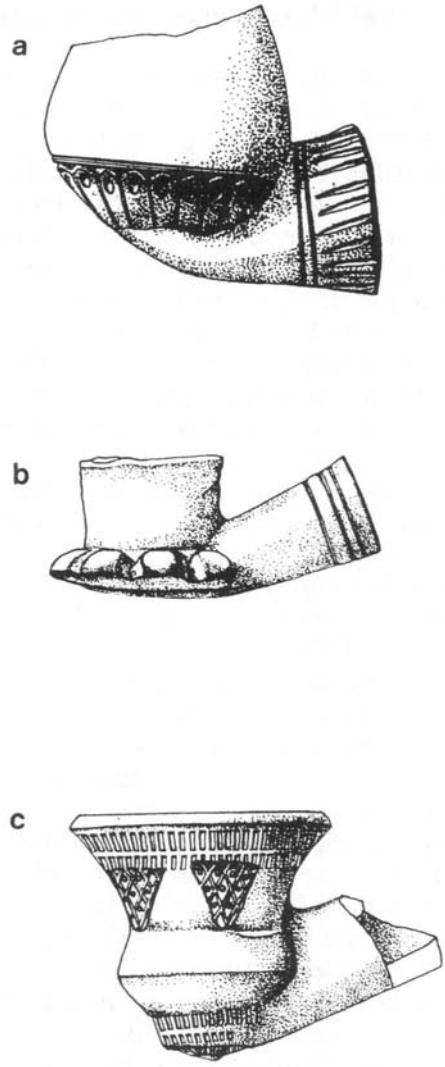

Figure 5.1. Examples of clay tobacco pipes used in the Ottoman Palestine during the eighteenth (a) and nineteenth (b, c) centuries. (Drawing by N. Z'evi).

provincial periphery, and away from the capital region, opens a window on this question of origins. Combining the evidence from documents and the materials remains, the origins of tobacco for the region can be found both in cultural diffusion and in the documented exchange from British traders (Baram 1996: 140–144).

This line of evidence based upon the shape of tobacco pipes is useful to move away from external and Western European agents of change and instead to find agents of change within the populations of people in the eastern Mediterranean, change occurring due to consumption within a cultural context rather than in emulation of Western Europeans.

With that clarification regarding the complex origins of tobacco and tobacco pipes, we can find agency in the integration of tobacco into Ottoman social life. The first pipe making guilds were set up during the second quarter of the seventeenth century. At first opposed by the Sultan and religious leaders, tobacco was rapidly integrated into Ottoman social life, the habit of smoking tobacco was rapidly taken up by the peoples of the empire. Tobacco was grown in Anatolia, Lebanon, Palestine, and imported from Persia.

Smoking tobacco became interlocked with coffee drinking. The consumption of tobacco and coffee come together with the institution of the coffeehouse, where people gathered to engage in social activities. The coffeehouse was an innovation in social gathering for the Middle East, a new arena for socializing outside the control of either the state or the mosque (see Hattox 1985). While consumption of tobacco was not restricted to coffeehouses, the use of this type of place had radical implications for the peoples of the empire (and partially explains the 1633 banning of coffeehouses by the Sultan). The locations of archaeological remains illustrate that smoking was not limited to the coffeehouse, and, in fact, was widespread through the Ottoman period.

The new consumption patterns are seen in the distribution of clay tobacco pipes across the archaeological record during the sixteenth and seventeenth centuries. From the fill of a Byzantine cistern on the Mediterranean coast to a trash midden of a religious school in Jerusalem, clay tobacco pipes are found nearly everywhere across the Ottoman Palestine archaeological record. The presence of the clay tobacco pipes is not surprising; the provenance can be the data for insights into processes of change on the local level.

During the first half of the eighteenth century, taxes on the export of tobacco existed for Jaffa and Akko (Cohen 1973:262), implying large scale tobacco production and export from the Palestinian port-cities. During that century, a wide range of variation of shapes, styles, and

colors of clay tobacco pipes appears in the archaeological assemblages. The eighteenth century is marked by changes in the relationships between the Ottoman central and local administrations, with some regions having autonomous governments and others having rebellions against the Sultan (Hourani 1991:207). One such example is the activities of Zahir al-`Umar in Palestine in late eighteenth century Palestine (Joudah 1987). The diversity in material culture might be linked to these political economic transformations.

Over the nineteenth century, an acceleration of mass-production is seen in tobacco pipes; the variation for these objects becomes constricted during that century. By the late nineteenth century, Western Europeans control tobacco production in Anatolia (the *Société de la Régie cointeressée des tabacs de l'empire ottoman,* commonly referred to simply as the *Régie*). The French are manufacturing Turkish tobacco pipes for the Ottoman markets. This standardization and the presence of the West in the material life of the Middle East is seen in many other forms, such as British-produced ceramics, German-constructed railroads, and European settlements. This is the period commonly referred to as the modern period in the Middle East (e.g., Hourani 1991).

In the early twentieth century, the tobacco pipe which had been an emblem of the Ottoman imperial rule (Kinross 1977) goes the way of the empire. Tobacco was still grown in Anatolia and in Palestine (the end of *Régie* control led to an expansion of tobacco production in Palestine, one that lasted through the start of British Mandatory rule); the pipes were replaced by Western styled and produced cigarettes. The end of Ottoman tobacco pipe production coincides with the end of the empire. Direct Western European control over Egypt, Syria, Mesopotamia, Palestine led to a flood of Western goods into the Middle East.

For understanding the transformation to modernity outside of Western Europe, one issue concerns the flow of Western goods into peripheral regions of the world system (Paynter 1988). For the Middle East, a trickling of goods led to a flood. The social dynamics that led to that flood is the key insight from the entanglement argument.

Interpreting the Material Remains

Lurking in the shapes, sizes, and designs of Turkish tobacco pipes have been a range of unasked questions concerning choices and representations. And across the archaeological record in Israel are the ceramics, bottles, houses, and settlement patterns that can rewrite the story of the Ottoman past for Palestine. The Europeanization of those

classes of material culture was only one part of a process; rather than directed by western Europe, change in material life occurred due to an engagement with global processes of change.

The appearance of tobacco pipes in the material record begins in the sixteenth century and lasts through the start of the twentieth century, a splendid correlation to the period that the Ottoman Empire ruled over Palestine. These artifacts embody the large scale consumption of this modern stimulant. The diversity of the tobacco pipes allows chronological typologies which are proving useful to field archaeologists (see Table 5.2), here I wish to expand on the social implications of the material changes.

This biography of the origin, spread, and appropriation of tobacco as seen through clay tobacco pipes leaves open the interpretation of material culture. This evidence could be marshalled to support the *Orientalist* conceptualization of Middle Eastern history. But, in the details of the artifacts and the patterns of change, another version of history possible.

As one step towards understanding social changes over the Ottoman centuries, the innocuous arrival of a commodity, its integra-

Table 5.2. Chronological Typology for the Clay Tobacco Pipes of the Ottoman Empire

Earliest (seventeenth century)	
Tend to be off-white, grey, or tan. small bowls with elongated shanks, earliest were elbow-shaped, ending at a rounded wreath	
Eighteenth century	
A great diversity of shapes and colors. tend toward the earth colors — brown, red brown, others; shapes include bowls that are rounded, sack-like, cylinder-shaped, or rest on discs; for the disc-shaped bowls, through the century the pipe becomes bigger; a plethora of motifs and designs decorated these types. Hayes (1992) looks for a thin, smooth red or red-brown ware with a polished surface.	
Early to midnineteenth century	
Beginning of standardization; red brown dominate the colors; typical shapes are rounded or disc-shaped bowls.	
Mid- to late nineteenth century	
Red brown, usually polished; fewer motifs or designs; mostly lily shaped bowls; very large examples; often decorated; majority have maker's marks	
Late nineteenth to early twentieth century	
Plain, large, brown lily shapes predominant	

tion into social life, and its latter basis for Western European control over production illustrate entanglement as a manner of incorporation of a peripheral region into the modern world system. As people consumed the habits of modernity, they became entangled in the production and distribution networks of global capitalism. The archaeological record illustrates the extent of the use of the commodity; Western travelers who wrote on social life never failed to include comments on the smoking of tobacco and the drinking of coffee—these modern commodities became part of the Middle Eastern cultural landscape.

A similar framework is possible for the material correlates of sugar and coffee (Baram 1996:116–120). These commodities have a history and from that history we can uncover the action of consumption. Archaeologists have uncovered and documented sugar cones used for production of the sweetener; fewer have published or documented the plentiful coffee cup sherds. The coffee cups, whose production ranges from Britain and Germany to China, parallel the tobacco pipes as indicators of modernity. The geographic origins and temporal distribution of these artifacts can address global processes of change and the transformation in orientation for the people of the empire. Documenting and analyzing the consumption patterns can aid in understanding the origins of modernity; the modern stimulants became fixtures of Middle Eastern cultural life as seen in *Orientalist* paintings and books and as uncovered in excavations across the region. The peoples were not passive in the wake of Western European global dominance. The goods were culturally appropriated even while they entangled the people into the economic and political hierarchies of the capitalist world system.

The clay tobacco pipes bring us to commodities that have a history and from there to the action of consumption. Interpreting the consumption patterns can aid in understanding the origins of modernity; the modern stimulants became fixtures of Middle Eastern cultural life. The implications for the benchmark dates of modernity, and for understanding the café scene described by Bernard Lewis at the start of this paper, open up the agency of people who have been written out of history and for supporting the significance of understanding the things they left behind.

UNCOVERING THE HABITS OF MODERNITY

I suggest that the archaeological remains of commodities point toward consumption as entanglement with global power. The global

commodities were not alien to the Middle East, they became Middle Eastern. The Ottoman Empire disintegrated; the Middle East became socially, economically, and politically dominated by Europeans and became divided by ethnic divisions. The history is the same as in the standard scenario, but the notion of entanglement opens up a narration with complexities of social relations and political-economic processes during the recent past. The common scene, invoked at the start of this paper, looks different when the interactions are stressed.

Assemblages of clay tobacco pipes are catalogued for the Kerameikos (Robinson 1983) and the Athenian Agora and Corinth (Robinson 1985) as well as for a collection from Istanbul (Hayes 1992). Over the next several years, more assemblages will be published as archaeologists in the eastern Mediterranean document the totality of finds, including Ottoman period finds, from excavations. Most of the publications will focus on chronological sequences and production typologies. This forthcoming flourishing of studies is most welcomed. Similar to studies of clay tobacco pipes in the Americas and Europe, continued publication of artifacts will allow greater chronological precision for and testing of the typologies and enable archaeologists to debate the material phases for the Ottoman centuries. The archaeological sequence should provide new questions for the social history of the region.

The argument here is meant to raise the possibilities of interpreting the artifacts of the last several centuries not only as embodiments of Ottoman material life (and of the regional variation of that material world), but also to shed light on the active histories of peoples who did not enter the documentary record. This follows Doumani (1992) in 'writing Palestiriare into history.' Though the discussion of the entangled objects has been generalized, the artifacts were used by the peoples of Jerusalem, the other cities and towns of Palestine as well as by villagers and nomads. Historians have provided many insights into their worlds, these objects speak directly to what they did during their lives. Here is the promise of an archaeology of the Ottoman Empire, uncovering the remains of people's lives and the transformations that they were actively engaged with.

CONCLUSIONS

Too much of the discussion on Israel/Palestine is presented as a moral play of passions, isolated from its social historical context. Participating in a common history, of course, does not imply commonality

of interests, but should allow us to explore the development of social relationships. Thus, the archaeology of the Ottoman Empire can act as a bridge between past and present to contextualize the material culture, people, and histories of Palestine and the rest of the Middle East onto a global stage.

In this paper, the material correlates of commodities are presented within a framework of entanglement for an anthropological exploration of the region's engagement with the modern world system. The goal has been not only to report on the 'archaeology of entanglement,' that is the material remains of globalization for a small corner of the Ottoman Empire, but to use artifacts to show the peoples of the Middle East were actively engaged in change. The critique against stasis expands the often told story of the region. Rather than an inevitable decline in the face of the triumphal West, and a similarly inevitable and eternal ethnic conflict, a complexity to the activities can be found. The interpretations of these assemblages only hints at the possibilities for employing the material remains of the Ottoman period. If this research encourages only the continued retention of artifacts from the upper levels of excavations, the project can be considered successful. More broadly, as noted in the introduction to this volume, the archaeology can bring forward the material past for analysis and interpretations that can change how we see both the past and the future of this troubled region.

ACKNOWLEDGMENTS

Support for the research came from the WF Albright Archaeological Research Institute and the Department of Anthropology at the University of Massachusetts, Amherst. Arthur S. Keene, Bob Paynter, and Mary C. Wilson contributed to my thinking on these issues. Thanks to all the conference contributors, especially Lynda Carroll, for encouragement and feedback on these ideas and to New College for support during the final stage of this project. Responsibility for this chapter remains with the author.

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6

Toward an Archaeology of Non-Elite Consumption in Late Ottoman Anatolia

Lynda Carroll

INTRODUCTION

Over the past two decades, a growing number of studies have focused on the social histories of workers, peasants, and other popular classes in the Ottoman Empire (e.g., Berktay and Faroqhi 1992; Faroqhi 1986, 1987; Quataert 1983; Quataert and Zurcher 1995). However, it is still relatively rare for these people to be included in historical dialogues focusing on the Ottoman Empire. After all, of the vast documents available to scholars on the Ottoman period, relatively few sources describe and document the lives of non-elite groups, especially working classes and rural populations. As a result, these groups remain virtually invisible, and their lives are left unrecorded. If dialogues centering around the lives of the peasants, workers, nomads, and other non-elite groups living within the Ottoman Empire are going to be written, new approaches must be explored.

Archaeology is one form of 'documentation' which can be used to examine non-elite economic behaviors of the Ottoman past. Much more than the study of sherds, or the history of minutiae, archaeology provides a window into the lives of workers and peasants by examining the types of material goods they consumed and then disposed of Equally important, archaeology allows us to reevaluate the relationships between non-elite groups and larger-scale political economies by examining the use of material culture within local, imperial, or global contexts. By focusing on non-elite consumption patterns,

LYNDA CARROLL • Department of Anthropology, Binghamton University, SUNY, Binghamton, New York 13902.

A Historical Archaeology of the Ottoman Empire: Breaking New Ground, edited by Uzi Baram and Lynda Carroll. Kluwer Academic / Plenum Publishers, New York, 2000.

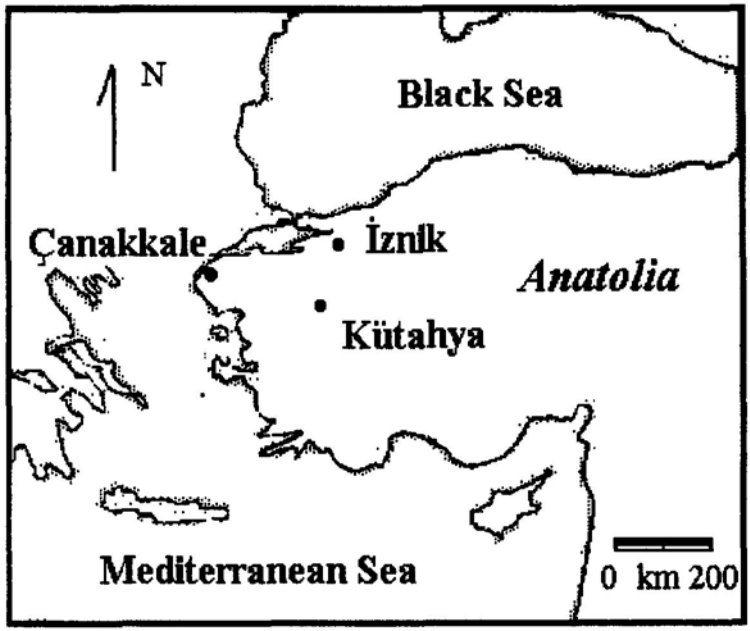

Figure 6.1. Anatolia, showing the locations of major ceramic production centers mentioned in text.

archaeologists can provide alternative views of non-elite economic behavior. In this essay, I am most concerned with Ottoman period Anatolia—whichtoday is known as the majority of the territory of the Republic of Turkey—and the relevance of archaeological approaches which focus on non-elite consumption. Ottoman component sites in Anatolia are rarely the subject of archaeological inquiry. I therefore acknowledge that this discussion will undoubtedly create more questions than definitive answers. Nevertheless, I hope to initiate additional dialogues focusing on non-elite ceramic consumption in the late Ottoman period.

THE RELEVANCE OF HISTORICAL ARCHAEOLOGY FOR OTTOMAN ANATOLIA

Although a unified archaeology of the Ottoman Empire has yet to be defined, archaeological approaches to the Ottoman past have emerged from a wide variety of disciplines, such as history, art history,

classics, and Near and Middle Eastern studies. My approach to an archaeology of the Ottoman Empire, however, stems from anthropological Historical Archaeology, which can be defined as a time period, a research method, and the study of the modern world (Orser 1996:23). While Historical Archaeology as a time period was initially conceptualized in contrast to prehistory in the New World, the other two definitions surely apply to Ottoman archaeology. As a research method, Historical Archaeology helps to create dialogues between documentary sources and the archaeological record, since both documentary sources and artifacts from the archaeological record can each be used to extend the meaning of one another (Leone and Potter 1988:14).

The most interesting potential of Ottoman archaeology, however, is its utility to help us describe the development of the modern world. Many archaeologists and commentators have argued that historical archaeology has the responsibility of bridging the past and the present (e.g., Kohl and Fawcett 1995; Leone and Potter 1988; Orser 1996; Silberman 1989). Ottoman archaeology can help us describe the development of the modern world by examining the relationships between peoples of the modern Middle East and the material culture they use, whether in the context of a global world economy, or within the household.

Dialogues focusing on non-elite economic activities, however, have been based on two major assumptions. First, non-elite groups are presented as remaining untouched by larger political economic spheres. For example, Anatolian peasant groups have often been considered resistant to change, isolated, and, therefore, disarticulated from larger, political economies, such as the Ottoman Imperial system. The second assumption is that we can attribute economic transformations solely to reactions to a global capitalist economy; the world system is often presented as the most appropriate unit of analysis through which we can study economic activities. Discussions about the processes of economic and social change have largely ignored non-elite groups, especially in comparison to the Ottoman Empire's trans-formations within a global capitalist economy. Social actions are presented as the product of a global system, especially one that emphasizes the west, and large-scale economic processes.

These two assumptions share the basic premise that non-elite groups remained outside of a world economy throughout the Ottoman period. All change was primarily imposed on local groups. Economic transformations are presented almost exclusively as reactions to larger scales of influence. In particular, the processes of modernization

and westernization—beginning in the late Ottoman period and continued and expanded throughout the twentieth century—have played a major role in creating these assumptions. We can challenge these assumptions by examining the changes in non-elite economic life in Ottoman Anatolia. By examining the economic and social links which tie non-elite groups into larger Ottoman and global networks, we can thereby debate the idea that the Ottoman past was isolated, unchanging or static.

Our understanding of non-elite groups in Anatolia is relevant for many reasons, including the fact that they assumed a major role in the creation of the Republic of Turkey. The construction of a Turkish national identity was based, at least in part, on the rejection of links to an Ottoman elite class (e.g., L. C. Brown 1996:5; Deringil 1998:217–218; Keyder 1997:44–46). The Republic of Turkey looked towards non-elite groups—specifically an Anatolian peasantry—to redefine an authentic national identity, thus separating the newly created Turkish state from the recent Ottoman past. As Keyder (1997:45) states the Amasses [of the Republic of Turkey] gradually emerged as the axis around which the subsequent history of Turkish society was played out.

In order to better understand this 'axis,' we should begin to reconsider the lives of non-elite groups in the late Ottoman period. Several important questions about non-elite economic activities—such as their access to wealth, use of material culture to negotiate status, or exchange networks—can be examined through their consumption patterns.

CONSUMPTION AS ECONOMIC PROCESS

In recent years, many archaeologists have expressed a growing interest in consumption as an economic process. In the discipline of archaeology, this topic is considered especially important for historical archaeologists who have expressed a particular interest in the development of the modern period, and the role of consumers in that development (see for a few examples Cook *et al.* 1996; Gibb 1996; Klein and LeeDecker 1991; Spencer-Wood 1987). In this approach, consumption is often presented as a way to create or negotiate individual or group identities—such as gender, or ethnicity. In addition, by focusing on what people consume, we may be able to better understand wealth and economic status, and the meanings which goods have for people within classes.

The popularity of consumption among historical archaeologists echoes a growing interest in this topic in the social sciences over the past decade. These studies were conceived largely as a way to examine the processes involved in the escalating production of material culture which characterizes the modern period, and to reevaluate the reasons behind the rise and development of consumerism (e.g., Brewer and Porter 1993; McKendrick *et al.* 1982; Shammas 1990). Consumers have a role and a stake in acquiring the things they use in their lives (e.g., Cooket *et al.* 1996; Friedman 1994; Henry 1991; Miller 1987,1995a, 1995b). Even when so-called 'choices' are limited by economic or social boundaries—or even the dictates of tradition—the appeal of this approach is that people have active roles in negotiating their material existence, within a political economy (Miller 1995b).

Critics of this approach, however, contest that individuals are not, and never were, completely free to choose the goods which they consume. Some social scientists argue that the notion of consumer choice is considered too simplistic and embedded within capitalist ideologies (Ewen and Ewen 1996, Wurst and McGuire 1999). More importantly, consumption-led approaches which try to explain economic transformations are meaningful, mainly to elite and middling classes.

Certainly, some members of a society have a greater impact than others in their ability to influence what is produced, and the relations behind how it is then produced, as well as the meanings and contexts in which they are consumed (e.g., Lury 1996:7). Consumption approaches which rely too heavily on consumer choice—while potentially providing information about individual activity—tend to obscure relationships, such as socio-economic status or relations of production. This is particularly true for non-elite groups, who are often not included in this dialogue, since they typically do not control the means of production.

The role of non-elite consumption in larger scale economies is nevertheless still quite relevant. People can, and do, are involved in the process of consumption; as Friedman (1994: 1–2) argues consumption is often examined as a 'question of demand dependent upon the income of the consumer rather than upon the nature of consumer desires and of socially constructed interests.' Consumption patterns not only illustrate what people choose to use, but also show how people—in communities, households, or other social groupings—are tied to relationships of production or exchange. Moreover, people can become entangled through exchange in consumption patterns which are characteristic of larger-scale political economies.

In the Ottoman case, the introduction of the coffeehouse, the use of tobacco and tobacco pipes, or the popularity of styles on ceramic vessels each represent ways in which consumption patterns helped transform social and economic behaviors. As a process, we should not only be concerned with the 'penetration' of European goods and the influence of European manufacturing techniques into the Ottoman world. Instead, we can also consider the relationships between European goods, techniques, relationships, or even styles with local economies and consumption patterns, to examine how material culture is exchanged and used by people. This may help to understand how people can shape or negotiate social activities through the use of material culture.

ECONOMIC TRANSFORMATION IN THE OTTOMAN EMPIRE

To examine the relationships between non-elite groups and economic transformations within the Ottoman Empire, we must turn to debates in Ottoman history. Much of the current literature focusing on the late Ottoman Empire is either informed by, or a dialogue with, world systems theories (e.g., Kasaba 1988; Pamuk 1987; Wallerstein and Kasaba 1980), or at least examine the Ottoman Empire's relationship to the processes of modernization, westernization or Europeanization. Many studies have focused on the incorporation and peripheralization of the Ottoman Empire within the capitalist world system. The major perspective presents capitalism as penetrating the Ottoman Empire, usually during the nineteenth century (e.g., Kasaba 1988; Pamuk 1987; Wallerstein 1974; Wallerstein and Kasaba 1980), as Western industrial centers sought to make the Ottoman empire a supplier of raw materials and a consumer of manufactured goods. Ideally, this economic transformation was supposed to encourage manufacturing, production, and higher levels of consumption. By the mid 19th century it is possible to see changes in local networks of production and trade which were related to the spread of Western capitalism.

In the sixteenth century, the Ottoman Empire vied for much of the trade and commerce and controlled vast dominions throughout the eastern Mediterranean. By the nineteenth century, however, the Ottoman's economic power on the global scale was increasingly eclipsed by Europe's. Burdened with nationalist movements in its provinces, and faced with the spread and increase in internal social conflict, the Empire lost control over many of its territories, as well as

much of the economic and political power it enjoyed during its classical era.

In an attempt to try to recover the empire's standing as a global power, the Ottoman state adopted a series of policies to encourage modernization and socio-economic reform based on European models, technologies, and strategies (e.g., Çelik 1993; Quataert 1989). By the nineteenth century, this included large scaled efforts to acquire western goods for the military, as well as new technologies introduced during the industrial revolution aimed at improving the empire's infrastructure. In 1839, the Ottoman government formally introduced the *Tanzimat,* a political and economic policy which declared the Ottoman Empire's intention of promoting liberal trading policies, political and social reform, centralization, and a broadly defined western economic model. Many Ottoman leaders and elites often accepted the promise of 'progress' and 'civilization' which this modernization process was believed to create.

By the midnineteenth century, and perhaps earlier, there were significant changes in production and trade networks within the empire. Local merchants, bankers, store owners, peddlers, and even the peasantry mobilized to take advantage of new European markets and opportunities for wealth (see for example Kasaba 1988). By the last years of the nineteenth century, the Ottoman economy was marked by increasing industrial capitalism, as well as an increased demand for consumer goods, especially by elites and an emerging bourgeoisie.

World systems theorists argue that these transformations occurred because the Ottoman Empire was incorporated into an emerging capitalist world system as a supplier of raw materials and consumer of manufactured goods (e.g., Kasaba 1988; Pamuk 1987; Wallerstein and Kasaba 1980). The lower wages paid to Ottoman workers often made the empire an attractive place for European industrialists to obtain raw materials and build industries. More importantly, these transformations were sustained through the labor of workers and the peasantry. Privately owned industries and other manufacturing establishments throughout the Empire are likewise presented as evidence of capitalist penetration into the Empire. World system approaches acknowledge the affects of exchange relations between global processes and local activities within the Ottoman Empire.

Unfortunately, these approaches have been critiqued because they often ignored the roles that people and communities had in these transformations. Faroqhi (1984:8) discourages Ottomanists against assuming that change is driven solely by a western political economy.

There is, she argues, the assumption that 'the Ottoman social system changed little if at all in the course of the centuries, except where European intervention disturbed its functioning.'

Although many of the transformations in the late Ottoman period economy were based on western/European manufacturing—such as mass production—certainly not all economic activity followed this model. While many major changes occurred during the later Ottoman period, many Ottoman groups remained self-sufficient, resisting such change and maintaining pre-capitalist social networks and relationships (see Quataert 1983, 1993a; Wagstaff 1990).

But although we can recognize their structural positions within the Ottoman or global economies, non-elites are mainly invisible, except when these groups were organized into guilds or other syndicates, and were of interest to the Ottoman state (e.g., Berktay and Faroqhi 1992; Quataert and Zürcher 1995). Even while considering the role of local communities as producers within a world system, what can we really say about the lifestyles of the people of the most modest substance in Ottoman history?

For example, Anatolian peasant economies are presented mainly as falling within a 'traditional' mode of production—or production for household or localized consumption and exchange (e.g., Keyder 1993:171–172), in which production in villages was based mainly on subsistence agriculture (although mixed economies including pastoralism, or the role of migrations to urban centers should also be explored). Peasant interaction with larger economic networks is glossed over, except in areas near ports, railroads, or major centers of exchange. For the Ottoman and early Republic periods, much of the peasantry in Anatolia are often described as 'almost untouched by Western civilization' (Issawi 1980:5), Atraditional@ (e.g., Keyder 1993:172) or otherwise static and resistant to change.

These descriptions have, at least partly, resulted from the way we conceive of non-elite agency and its relationship to broad scaled change. The Ottoman world has been divided into two basic worlds where elite groups, the state, or large-scaled processes were responsible for change, while non-elite groups are unchanging or 'traditional,' except where they are altered by elites, the state, or larger scaled economic forces. In other words, non-elite groups are described as mainly traditional, and, by extension, reactive to transformations—experiencing change only when it is imposed from above, or when they resist its implementation. Rarely are they considered active agents in processes of change. These arguments rely on differentiating between

so-called complex and simple social groupings, where the former initiates social or economic change, and the later react. This applies both to the west and the Ottoman state itself. While this certainly does occur, especially in contexts characterized by unequal power relationships, the question of how and why groups change must be critiqued.

Non-elite groups are often placed within a category emphasizing their ties to 'tradition.' Peasants are presented as living in social contexts which are perceived as unchanging, and linked to a complex of material culture which is classified as outside of the realm of modernity. The division between so-called traditional populations and groups considered to be touched by modernity has created a dualistic distinction 'between necessity and luxury,' a distinction which surrounds all notions of non-elite economic action (Friedman 1994:3). These categories which assume that the category of 'traditional' material culture is antithetical to that of the 'modern' commodity divides the world into two groups—one of 'traditional' subsistence producers and consumers, and one which is related to material culture based on systems of specialized production (Friedman 1994:3). Primarily, these divisions are based on approaches which see change mainly through relations of production.

More important, the concept of peasantry as a category has 'come apart at the seams' (Kearney 1996:30). The very notion of a peasantry can be critiqued as a form of primitive essentialism, in which small-scaled societies or social groupings are viewed as untouched by larger scaled political economies (e.g., Kearney 1996; Wolf 1982).

By filling in the details of what kinds of goods people used in their everyday lives, archaeology provides a method to examine these processes. For example, Baram (1996) has argued that we can examine the entanglement of local groups into larger scaled trade networks by examining the artifacts people used to prepare and consume products such as coffee, tobacco, and sugar. In order to readdress the role of non-elite people in the recent past, and how that leads to constructions of the present, we have to look at how remains such as these were entangled into people's lives. To what extent (if at all) were the goods which we associate with an expanding world system used and manipulated in non-elite Ottoman economies? And to what extent were the goods associated with an Ottoman elite class also a part of the material worlds of non-elite groups? To reevaluate Ottoman economic activity from below, we also have to examine the changing meanings behind material culture within a larger Ottoman world. In this context, I suggest that we can use an approach which parallels those used by

historical archaeologists—especially those who examine how cultures and material cultures become entangled within a modern world (see Baram 1996; Orser 1996).

In order to understand the exchange of material culture within the Ottoman world, we must examine the related processes of production and consumption, and the relationships which help structure economic activity. But while studies focusing on the roles of non-elite groups in Ottoman production has been initiated (Quataert 1983; Quataert and Zurcher 1995), non-elite consumption practices have been largely ignored and taken for granted (but see, for example, Baram 1996, this volume; Quataert 1997:411). Archaeology therefore provides a good opportunity to examine the remains of what people consumed.

OTTOMAN CERAMIC 'TRADITIONS'

I am concerned with ceramic consumption in the Ottoman Empire. Ceramics are often studied by archaeologists, since they are not easily destroyed, and thus are often found on archaeological sites. Sometimes ceramics can be traced back to specific manufacturing sites, and, in some rare cases, individual craftsmen. Ceramics are often highly stylized and decorative, which can tell us about when they were made. These decorations also can increase their value or confer symbolic meanings to them, their owners, or the places they are used. In addition, ceramics were consumed in every corner of the Ottoman Empire by many different classes of people.

A significant body of literature already exists concerning Ottoman period ceramics (see for a few examples Altun *et al.* 1991; Aslanapa et *al*. 1989; Atasoy and Raby 1994; R. Brown 1992; Carswell 1985:32–33; Crane 1987; Denny 1974; Hayes 1992; Henderson and Raby 1989; Lane 1971:21–67; Raby and Yücel 1983; Tite 1989; Ziadeh 1995). The combination of a literature on Ottoman ceramics and the great potential for actually studying how these wares were distributed throughout the empire or used at the local level is quite promising. Yet, despite the extensive literature dealing with Ottoman ceramics, most studies address on the wares which were produced in large scale Ottoman production centers. Specifically, there has been an emphasis specifically focused on the ceramics produced Iznik, Kütahya, and Çanakkale (see Figure 6.1), even though ceramics were produced throughout the empire—at large centers supplying these wares for wide distribution, as well as smaller, localized workshops. Handmade vessels also

comprised a significant portion of the ceramics circulating and used in rural contexts (e.g., R. Brown 1992:174).

Despite the great variation in ceramic manufacture throughout the empire, the vessels and tiles produced at Iznik are the most well known and studied Ottoman ceramics to date. In addition, excavations of the ceramic kilns at Iznik (Aslanapa *et al.* 1989) are one of the most noted examples of Ottoman archaeology, and have made a great contribution to Islamic art history and archaeology in general, and specifically Ottoman period archaeology (e.g., Atasoy and Raby 1994).

Located in northwestern Anatolia, Iznik was the most important production center of high quality ceramics intended primarily for elite use until the seventeenth century. Ceramic and tile production at this site dates from at least the fourteenth through seventeenth centuries, although the height of production corresponds to an Ottoman classical period in the sixteenth century. These vessels were produced mainly for an elite market—being either commissioned by the court (for the imperial household, or monumental architectural decoration), or other elites. These ceramics were also sold through agents on the market. The high quality ceramic wares produced at Iznik are famous, often considered the finest ceramics produced in the Ottoman Empire. As such, Iznik tiles and ceramics have been of interest to scholars for some time (see for example Altun 1991; Aslanapa *et al.* 1989; Atasoy and Raby 1994; Carswell 1985:32–33; Denny 1974; Henderson and Raby 1989; Lane 1971: 21–67; Raby and Yucel 1983; Tite 1989). Iznik tiles are almost ubiquitous in grand Ottoman architecture of the classical periods, such as mosques, or in Topkapi Palace. Iznik vessels graced the tables of sultans, elites throughout the Empire, and even some elites in Europe. These wares were considered to be good substitutes for the more expensive porcelains, and became ideologically important symbols of power and prestige used by elites (Carroll 1999), in a tradition which linked blue and white pottery to Islamic royalty (Denny 1974:76).

Iznik wares were typically decorated using blue cobalt over a white slip, and then covered by a colorless glaze. Sometimes other colors were also included in the decoration, such as greens, reds and lavenders. Although these wares were often based on themes common on Chinese porcelains, potters rarely copied the Chinese styles exactly. Iznik ceramics had a distinctly hybrid Ottoman style, which was derived from combinations of Turkish metal vessel shapes, and a combination of Chinese and Arabesque motifs (Mudge 1986:20; see also Denny 1977:188). Relatively expensive, the appeal of the ceramics produced at Iznik during the sixteenth century was that they were

used as markers of elite status, since they were considered to be good substitutes for Chinese export porcelains.

Ceramic production occurred in a variety of workshops at Iznik by master craftsmen and their apprentices. Although the Ottoman state helped sponsor ceramic production at Iznik in the fifteenth and sixteenth centuries, workshops and kilns were independently owned by master artisans. Creditors and the state owned part of their capital; official representatives of the Ottoman state not only supervised production, but also obtained and distributed supplies for potters, which would later be repaid from the proceeds of sales (Atasoy and Raby 1994:63). There was also a division of labor within some workshops (Denny 1977:190); some Iznik vessels were decorated with drawings created at the court, and some were painted by artists supplied by the court. Artists from the court were brought to Iznik to participate in at least some of the finer ceramic decoration.

While commissioned works made up a significant portion of Iznik products, these were also available in the marketplace (Aslanapa *et al.* 1989:21). When orders for vessels and tiles from the court dropped, potters at Iznik produced wares to sell on the marketplace—often relying on sales to local elites, as well as European exports (e.g., Denny 1977:190; Lane 1971:60). Especially in this context, potters deviated from court styles, adopting more freehand styles (Atasoy and Raby 1994:115,118).

Ceramic production during the Ottoman classical period, however, was by no means limited to Iznik. Other centers—including Kütahya—also produced fine Ottoman ceramic vessels (Carswell 1991). Although they also followed in the tradition of an Ottoman style, these vessels were less expensive than their Iznik counterparts (Carswell 1991:53), at least partially because they were considered of somewhat inferior quality.

As Ottomans elites gained more power, more territories, and more wealth in the sixteenth and seventeenth centuries, the abilities of the imperial court to import fine porcelains also increased. In addition, these conquests meant that a larger number of people—merchants, soldiers, even craftsmen—had more income. After 1550, an increasing number of Chinese porcelains made their way into elite households within the empire. Iznik wares therefore gained greater popularity, and are found in increasing numbers in elite households. However, the availability of expensive porcelains meant that their imitations from Iznik would eventually be further devalued (Atasoy and Raby 1994:98).

While potters tried to supplement their orders from the court by making wares for open market, the Ottoman elites which were

once major customers no longer expressed as much interest in Iznik; while Iznik wares maintained value as status markers, Iznik's position as a center supplying fine ceramics diminished. Increasing production with wider distribution of Iznik wares affected their quality, as they slowly gained a reputation for being produced for the masses (Denny 1977:190). By the seventeenth century, production of Iznik ceramics had taken a turn for the worse. Iznik wares no longer had the symbolic power to command the type of prestige Ottoman elites expected.

As court patronage and commissions from elites dropped, potters turned to larger markets. This, however, did not help the ceramic tradition in Iznik (Atasoy and Raby 1994:64). Unable to maintain these high standards, potters at Iznik began to produce wares in an increasingly debased potter's style (Atasoy and Raby 1994:285). By the 1650's, no ceramics of 'any quality' were produced at Iznik (Atasoy and Raby 1994:31). Instead, production shifted from elite ceramics which were strongly influenced by Chinese wares, to wares which became more heavily associated with inexpensive ceramics consumed by middling and lower classes.

By the eighteenth century, there were significant transformations in ceramic consumption among elites and an expanding middling class. Porcelain imports from the Far East became the most desired type of ceramics consumed by elites[1]. But as the Ottoman state and elite classes initiated various policies of modernization and westernization in the later Ottoman period, many forms of European material culture were entangled in the empire. This included European import ceramics. Although Kuthaya had continually produced ceramics since the fourteenth century, it appears to have gained (along with Çanakkale) even more prominence as one of the primary ceramic production centers in late Ottoman Anatolia.

As far as the excavations at Iznik are concerned, the work at Iznik has been presented first and foremost as an archaeology of production. Due to this work, we can better understand methods and techniques of manufacture. Along with historical documents and records of sales, we can even trace the distribution of these works to elite households within and outside of the Empire (Atasoy and Raby 1994), or examine how they were used in elite sponsored architectural works (Denny 1977).

Iznik, however, is largely a site without people. What about the groups who produced these fine wares? While we can look at the birth of a ceramic tradition, the everyday lives of these artisans who created them have been mostly ignored. We have little information on how the

experiences of potters differ from those of other guildsmen or workers in the empire. Most importantly, while we may be able to examine how these people earned their living, can we say much about how they lived?

The research design at finik conforms nicely to previous understandings of the modern world and the Ottoman empire. finik reaches it's height at approximately the same time as the empire's supposed height in the sixteenth century. After this time, the empire, and finik, are both described as falling into a period of 'decay' and 'decline.' Moreover, this period is often correlated with the expansion of a global capitalist economy into this region by the eighteenth and nineteenth centuries. In this case, however, the decline in elite ceramic production has less to do with European expansion or importation of goods, and more to do with the influence of Chinese export porcelains. This affects both elites and non-elites, since Ottoman ceramics—once considered a product mainly for elite use—loose much of their value as status symbols.

In the eighteenth century, the majority of Ottoman ceramic production in Anatolia shifts to other centers, such as Çanakkale and Kutahya. These wares produced there were popular, but did not compete as much for elite markets within the Empire; their styles no longer conjured up the prestigious symbolism that Inik wares did during the classical age. Many of these wares were produced for a wide variety of consumers. In addition, these ceramics were popular in Europe (e.g., Aslanapa *et al.,* 1989, p. 21; Atasoy and Raby 1994:113; Carswell, 1985; Lane, 197159, 63), as examples of 'Oriental' art. Were these wares now considered too low in quality, unsophisticated, or even traditional for elite consumers within the empire? Many of these so-called peasant wares were distributed throughout the Aegean region and other parts of the empire (Lane 1939:234). The meaning behind Ottoman ceramic production and symbolism may have been changed from one indicating class affiliation—status—to one indicating the changing meanings behind what constituted group affiliation within a fragmenting empire. But at what point were these styles redefined as 'traditional' Turkish wares?

Blue and white ceramics—in an Ottoman style—was originally a marker of elite status in the empire. But this Ottoman ceramic style has since come to be associated with a distinctly 'Turkish' style, and holds meaning as a part of a Turkish artistic tradition. More importantly, Inik and Kutahya wares formed the foundation of Ottoman ceramic revivals in late Ottoman Anatolia and the Republic of Turkey (Glassie 1993:444). 'Turks' and the Republic of Turkey are often considered to be the sole inheritors of Ottoman history, and, in this case,

a traditional craft style. Yet, many contemporary Turks look to an Anatolian peasantry—and not an Ottoman elite culture—for their cultural heritage.

As archaeological investigations in Anatolia begin to focus more on the Ottoman period, we will begin to understand the distribution and consumption patterns of Iznik and other Ottoman ceramics wares, as well as better understand how patterns inform us about the everyday lives of Ottoman subjects. However, we have relatively little idea about what happened in terms of ceramic production for non-elite groups. I argue that there is a major gap in our knowledge about Ottoman ceramic production, consumption, and distribution simply because we are not necessarily able to see the smaller scaled, localized, or simply utilitarian production centers without archaeological investigations. Were non-elite groups tied into imperial networks of exchange? Were Anatolian peasants using vessels produced for exchange in other Ottoman provinces? Glassie (1993:422) suggests that this may be the case, since Bulgarian wares were very popular and traded throughout the empire in the nineteenth century.

Finally, what roles did the changing consumption patterns of commodities like coffee and tobacco have in the production, exchange and consumption of a wide variety of ceramic vessels which were used along with these goods, such as coffee cups or clay tobacco pipes? What are the implications of understanding these relationships for our understanding the lived experiences of non-elite groups in Ottoman Anatolia?

CONCLUSIONS

As I forewarned, this chapter has brought up many more questions than available data currently allows us to examine. Moving towards an archaeology of non-elite social action, the use of material culture must be viewed on several scales of analysis. At the largest scale of analysis, societal trends which characterize the modern era as consumers swimming in a sea of material objects allow us to examine trends in the cultural context and meaning placed on material culture and other commodities. At the smallest scale, individual action may help aid in understanding the motives and incentives behind Ottoman ceramic consumption. Both scales can offer insights, and we can come full circle in understanding the processes of creating, using and manipulating material culture for and by the people of most modest substance in Ottoman society. Understanding production and

consumption patterns may help us understand, as well as appreciate, the dialogues which have been created through the use of material goods in global and local arenas.

In an attempt to move toward an archaeology of non-elite consumption, I have argued that the changes in non-elite consumption and production may have great significance for understanding their lived experiences. The changes in their lives were not simply responses to European powers or fashions. In this case, the use of ceramics helped create symbols representing an elite class during the Empire's 'height,' and a non-elite segment of society in the context of global entanglements in its later years. This may have also meant that people within the empire, through symbols associated with an empire, were also tied to a global system.

This essay was aimed at providing a context for future archaeological investigations in Ottoman period Anatolia, specifically looking at how consumption patterns of ceramics may indicate transformations in social action among non-elite groups. As archaeologies of this region begin to unfold, and our understanding of the distribution of Ottoman period ceramics becomes clearer, we may begin to examine some of the other pressing questions concerning non-elite social action.

ACKNOWLEDGMENTS

I would like to thank Laurie Miroff, Mary Price, and Uzi Baram for reading various drafts of this paper in its preparatory stages. This paper, although expanded since it was first presented in April 1995, is based on an earlier paper read at the Breaking New Grounds for An Archaeology of the Ottoman Empire Conference, entitled 'Men of Even More Modest Substance: Towards an Archaeology of Non-Elite Consumption in Ottoman Anatolia.' This final version has benefited greatly by pre-dissertation research, funded in part through pre-dissertation fellowships from the Social Science Research Council–NMERTA Program (1996–1997), and the Institute of Turkish Studies, Inc. (1997–1998).

NOTE

1. Over the centuries, the imperial household would acquire one of the most significant collections of export porcelains in the world, of which over ten thousand pieces survive to this day (Atasoy and Raby 1994:15).

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III

TRADE, SUBSISTENCE, AND IDEOLOGY IN THE OTTOMAN EMPIRE

As seen in the previous section, the search for local histories is one of the goals for surveying regions, excavating sites, and analyzing artifacts. But the archaeology of the Ottoman Empire also can address issues of general archaeological concern, to include the artifacts and cultural landscapes from the Ottoman period within the general archaeology of the region. Three of the pillars of archaeological research are investigations into trade, subsistence, and ideology. The case studies in this section start a dialogue with archaeologists regarding these topics which are of fundamental concern to the discipline of archaeology. Historical Archaeology has been used as a type of ethnoarchaeology, using the control over what happened in a time period to correlate material remains to issues of general archaeological concern; the examples in this section illustrate the insights that the archaeology of, respectfully, trade, subsistence, and ideology for the Ottoman Empire can provide for earlier time periods. And in addition, the case studies provide entry points for a significant large scale issue for the Ottoman Empire: the interaction between the state (and its administrative structures) and localities during the last several centuries.

Traditional histories of the Ottoman Empire focus on the Sultan and his court. Great leaders, like Suleyman the Lawgiver (more commonly known in the West as Suylieman the Magnificent), are understood to have governed well, expanding the empire and facilitating a smooth administration. Other, particularly later, sultans are presented as misguided or inferior. The evaluation of individual reigns can be left to historians, but popular assumptions conflate the empire with its rulers. The archaeological study of the Ottoman Empire can contribute to the comparative study of imperial rule. Historical Archaeology tends to examine influences rather than control; the chapters in this section illustrate the possibilities for exploring power

dynamics for an empire in the modern era, to uncover the relations of domination and resistance, accommodation and social change, from the archaeological record. Each of the authors examines issues that transcend the Ottoman Empire and its time period. LaBianca is explicit on this point, pointing out the comparative wealth of data for the Ottoman period versus earlier epochs in Jordan.

The three contributions illuminate dynamics of imperial planning and administration. From a shipwreck in the Red Sea, we find evidence of the extensive and long-distance trade that marks the geographic history of the Ottoman Empire. The goods from East and South Asia recovered by Ward illustrate the trade that flowed into the eastern Mediterranean and provide a picture of a moment in the mid-eighteenth century. From the Chinese export porcelains, we can piece together the distribution of goods in terms of the choices made by merchants. The continuing excavations of the Sadana Island shipwreck will aid in the chronological delineation of goods and provide insights into the globalizing of trade in the eighteenth century. But it also contributes to general archaeological interest in the movement of goods. For instance in encountering the balance between agency and social process, Ward gives us documented evidence for the choices made by British merchants in China. The absence of certain types of artifacts (e.g., the lack of human figures for ceramic decoration) indicates the intersection of ideology, consumer choice, and trade for the Ottoman Empire. Material evidence of cultures in contact comes across clearly in this example.

LaBianca explicitly tackles the intersection of the imperial control with local level resistance. LaBianca's food systems approach includes large-scale, comparative issues for the Ottoman period archaeological remains from the Madaba Plains Project. Subsistence is more meaningful than just what people eat; LaBianca locates in the food system an indigenous resistance to imperial rule as well as insights into human manipulation of the environment. The framework allows questions for the gaps in history as well as when the archaeological data is sparse.

The Ottoman Empire was an Islamic imperial formation. Much of Historical Archaeology has ignored the material correlates of religion; to address a concern with ideology, Snyder describes the transformations in architecture for mosques. Her typology of mosques illustrates a change in symbolizing the central government. As the mosque became larger by the sixteenth century, planning needed to include technological innovations for lighting the interior of the mosque. We get the sense of how the mood changes with transformations in archi-

tecture. The dynamics of history for a tradition is clearly presented, a significant move for archaeologists. The indicators for what constitutes a Muslim religious structure is clear. Rather than the architectural traditions being equated with stasis, Snyder helps us to envision tradition as transformative. Her study of the architectural implications of light opens up new vistas for the social study of architecture. And similar to the other chapters in this section, the intersection of administrative planning of mosques with the actual use of the religious buildings brings forward the dynamic power relations for the empire.

The topics in this section exemplify typical topes for archaeology and they employ Ottoman period material remains in innovative manners. The topics are part of a dialogue that Ottoman Archaeology will need to sustain with both Middle Eastern Archaeology and Historical Archaeology. And the insights into social relations can increase the understanding of the Ottoman Empire and raise questions for other empires. Social historians of the Ottoman Empire are attempting a comparative understanding of the empire; archaeological research may help to propel that endeavor. An archaeological perspective on of the Ottoman Empire can contribute to situating it as part of global history. These case studies are part of that dialogue as well.

7

The Sadana Island Shipwreck

A Mideighteenth-Century Treasure Trove

Cheryl Ward

THE SHIPWRECK

Before the Industrial Revolution, sailing ships were the world's grandest and most complex machines. These floating emporia acted as conduits between countries and continents for people and ideas. Just off the coast of Egypt, a ship capable of carrying approximately 900 tons of cargo slammed into a coral reef and sank more than 100 feet beneath the Red Sea nearly two and a half centuries ago. Since 1994, the Institute of Nautical Archaeology—Egypt has investigated the Sadana Island Shipwreck in cooperation with Egyptian authorities and institutions (Haldane 1994, 1996).

To date, archaeologists have excavated, catalogued, cleaned and conserved nearly 3,000 artifacts stored in the Alexandria Laboratory for Submerged Antiquities, a joint project of INA-Egypt and the Supreme Council for Antiquities of Egypt (Haldane 1996). Chinese export porcelain, earthenware water vessels and tablewares, copper kitchen utensils and cooking pots, glass liquor bottles, a wide variety of spices, aromatic resin and other organic remains, and more personal items such as pipes and jewelry provide unexpected physical evidence for trade in a part of the Red Sea whose significance is less well documented and understood than commerce further south (Brouwer 1991, 1992; McGowan 1994).

About 15 kilometers north of Safaga, a fringe reef extends about 500 meters from shore to Sadana Island, itself no more than 500

CHERYL WARD • Department of General Academics, Texas A&M University at Galveston, PO Box 1675, Galveston, Texas 77553.

A Historical Archaeology of the Ottoman Empire: Breaking New Ground, edited by Uzi Baram and Lynda Carroll. Kluwer Academic / Plenum Publishers, New York, 2000.

meters long. Two full seasons of excavation took place in 1995 and 1996; the third and final exploration is scheduled for summer, 1998. Data from almost 3,000 dives have produced a framework for understanding the site as well as an evocative collection of artifacts whose preservation and study is ongoing under the author's direction.

The wreck site lies between 28 and 40 meters beneath the sea on the north side of the reef, and stretches nearly 50 meters along the sandy seabed. The ship rests parallel to the reef, with the bow deeper than the stern and most of the starboard side broken away and inaccessible. Much of the stern is intact, including an iron grid from the transom and massive timbers, some of which are more than 60 × 60 centimeters in section. The ship seems to be shell built, a shipbuilding technique in which the planking shell precedes the insertion of framing, but the Sadana ship is neither sewn together nor edge-joined as most shell-first ships are. Its timbers are covered with a relatively thin layer of sand, and few artifacts now remain on site. Although the ship is just older than the United States, it is proving surprisingly difficult to find any comparable land sites in the area as regional archaeologists have focused on the more distant past.

An Arabic inscription on a copper basin dated 1764 CE places the ship's final voyage in the mideighteenth century. Its cargo of Chinese export porcelain, Indian pepper and coconuts, spices from islands in the Indian Ocean, and earthenware vessels, incense, and coffee from the Hadramaut testifies to a northbound journey while exemplifying international contact and exchange (McGowan 1994; Raby 1986). A lack of cannon on the ship suggests that its voyages were confined to the Red Sea, within the boundaries of the Ottoman Empire, and that it had no need to defend itself from the pirates or European merchant ships that had few compunctions about appropriating goods from other vessels in the western Indian Ocean and south of the Red Sea (Brouwer 1991, 1992). The ship's interior details bear little resemblance to contem-porary Chinese, Mediterranean, European, or American watercraft. Although the Sadana ship is not an edge-joined, sewn ship such as the dhow, its timber and hull dimensions have more in common with these western Indian Ocean ships than with either Western or Far Eastern examples. To date, no ship expert has reported similar construction on an excavated vessel, adding to the importance of documenting the Sadana ship's unique construction.

Many archaeological excavations and historical studies focus on Mediterranean trade in the Ottoman period, but the tides of commerce in the Red Sea and Indian Ocean are only faintly understood (Panzac

1992; Chaudhuri 1985; Das Gupta 1987; Lewis 1973). One of the excavation's primary goals is to examine the ship's role within the region's historical, economic and geographical context. Analysis of artifacts classed as personal possessions rather than cargo suggests that, like the ship, the crew was non-European. The paucity of finds, their strong Islamic cultural parallels and even Arabic inscriptions point to a Muslim crew, as historical sources confirm (Raymond 1973; Hansen 1964; Niebuhr 1772, 1774). This study will thus significantly advance our knowledge of Arab and Indian navigators.

A slightly earlier wreck, excavated by Avner Raban at Sharm el Sheikh, had strong Mediterranean links although its cargo of about 1,000 clay water jars (*qulal*) belongs more to the Arab world (Raban 1971). The Sharm el Sheikh ship relied on typical eastern Mediterranean construction techniques and was built primarily of fir and pine. Sunk at anchor fairly close to shore, the ship had burned to the waterline. Only a handful of porcelain fragments remained in the presumed cabin area, either because the remainder were previously salvaged, unloaded before the sinking, or even from an earlier voyage. These dated the ship to the late Kangxi period (1662–1722), and Raban suggests a date in the second quarter of the eighteenth century. Israel recently returned all Sharm el Sheikh artifacts to Egypt as part of recent political accords, but I have not seen the collection.

The Red Sea was the gateway to Europe for many oriental products, and sea travel, despite the risks of navigation along coral-lined shores, proved to be much cheaper and safer than land caravans. The collapse of the Safavid dynasty in the Persian Gulf during the first part of the eighteenth century weakened trading networks there and contributed to the spread of piracy along its shores, causing mercantile interest to shift to the Red Sea. Although European ships had been sailing to Suez since the sixteenth century, they rarely operated north of Jeddah during the mideighteenth century (Faroqhi 1994; Chaudhuri 1978). Europeans still formed an important component of regional trade because they not only brought eastern wares to Mocha from China and western India but also extended the line of trade through cargoes purchased in and shipped out of Alexandria, especially coffee (Raymond 1973). Indian ships also followed the same routes (Parkinson 1948).

Much of the Red Sea trade reached Egypt by a complicated route. Ships obtained goods in China and Indonesia, and often transshipped cargoes at other centers such as Surat in India. From there, Indian and other ships caught the spring monsoons and carried locally produced spices and textiles, in addition to Far Eastern luxuries such

as porcelain, to Mocha and Jeddah. Coffee, spices, incense, porcelain and inexpensive textiles dominated the markets there, and travelers describe ports with ships from all corners of the Indian Ocean. Indian ships were particularly common, both at Suez and in Jeddah. Investigating these strong commercial and cultural ties is important to understanding the scale and depth of interaction in the area, and studying a ship carrying the most sought-after goods of the period provides an exciting opportunity to do so. This contribution reports preliminary finds and offers commentary on their significance, which must be considered carefully as there are no comparable excavated collections.

Raban expressed frustration with being unable to define the origin of *qulal* from the Sharm el Sheikh wreck, again, because few dated examples from the post-medieval period can be identified. It is clear from looking at the far broader range of artifacts and organic remains from the Sadana Island shipwreck that the story of shipping in the northern Red Sea is more complex. For example, research in England's East India Company's archives by Richard Kilburn has produced a letter instructing employees in Canton buying porcelain for sale in Mocha that could almost be a manifest for the Sadana Island ship (see below). The stunning collection of Chinese porcelain in the Topkapi Museum in Istanbul includes many of the same types of objects (Krahl and Ayers 1986). From a Danish scientific expedition chronicled by Carsten Niebuhr (Niebuhr 1772, 1774; Hansen 1964), we learn that exorbitant freight charges on the Red Sea ships meant that even the largest class of ships (50 meters and longer) paid for themselves after only three voyages. Niebuhr also provides an intimate portrait of life aboard one of these gigantic vessels, which might carry 75 crew with their wives and children in addition to 500 or 600 pilgrims.

The Sadana Island ship is one of four vessels of this size and with similar cargo INA-Egypt has identified in the northern Red Sea. The wreck at Sharm el Sheikh, a second porcelain wreck below 50m near Hurgada, and a porcelain cargo salvaged in the early 1980s north of Jiddah all point to an active trade route north of there. The Sadana Island ship is the only accessible site with substantial hull remains and cargo present, and it offers an unprecedented opportunity to examine closely a mideighteenth-century global venture that links the ship's final voyage to the greater world of commerce and society across four seas. Excavation will be completed in 1998, so all conclusions presented below are tentative.

Chinese export porcelain and earthenware water jars (*qulal*) are the most numerous finds on the site. So far, over 540 complete and

several hundred broken porcelain objects represent a special class of export wares created by kiln centers in China for the Middle Eastern market. Cultural injunctions against the representation of human figures meant that most porcelain sold in the Middle East featured floral designs. At least some European agents for cargoes destined for the Red Sea were strongly warned against buying any other type, which resulted both in limiting market choice and responding to market demand. A 1723 letter from the London office to the person responsible for purchasing porcelain for the British ship *Princess Amalia* describes the task of selecting goods in China for later sale in Mocha succinctly:

> CHINAWARE 300 to 350 chests. Tis impossible to give particular or full Instructions for providing this Articley One General Rule must always be observed, and that is, never to pack a peice [sic] of Ware that hath the figure of Humane Species, or any Animal whatsover, and as formerly the Color'd ware prevailed, so it is more than probable that it still doth, the red and gold used to be most in esteems, & three quarters of the colour'd Sortments with one quarter of blew & white was the customary package of the whole parcel. (Richard Kilburn 1996, pers. comm.)

The Sadana Island collection includes a single piece decorated with animals (two cranes), and none with humans, suggesting its purchasers did not want or did not have access to more figurative styles.

Monochrome glazed, enameled (also called colored or Chinese Imari), white, and blue-and-white decorated wares allow us to look at the variety of Chinese porcelain known and used in the Ottoman world. The Sadana collection includes several types of the popular blue-and-white porcelain traded to Europe and elsewhere in large numbers. At least 170 large blue-and-white dishes decorated with a peony scroll motif on the interior and two bare branches on the exterior have been excavated. The dishes measure either 34.4cm or 37.8 cm in diameter like those represented in the Topkapi Sarayi collection and are there dated to the late seventeenth or early eighteenth centuries (Krahl and Ayers, 1986:1026, no. 2208). Two other blue-and-white, saucer-shaped Topkapi dish designs also present at Sadana are dated to the early 18th century (Krahl and Ayers, 1986:1072, no. 2405, and 1073, no. 2408).

More than 210 cups of at least 15 different types include celadon and monochrome brown glazed examples (typically dated to the later seventeenth century), cobalt blue bodies once overlaid with gold, a brown glazed type having a quatrefoil medallion filled by an underglaze blue plum-family blossom, and a number of others in the Chinese Imari group (Figure 7.1). On many of the latter examples, only the

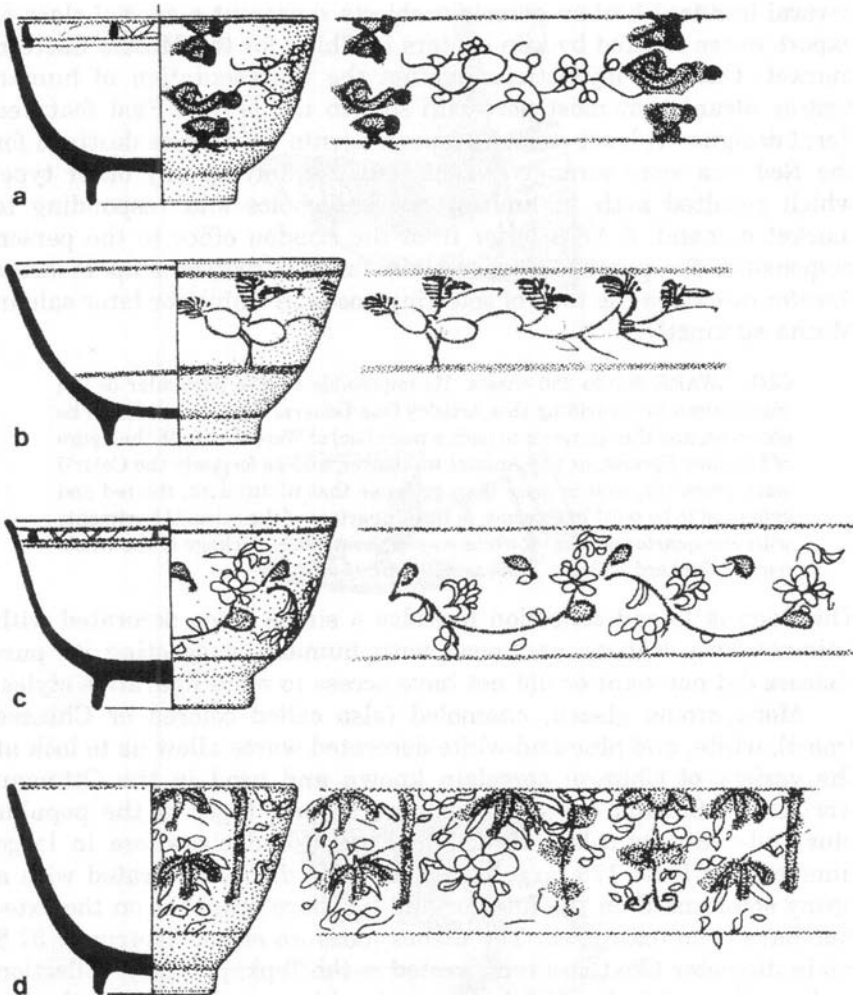

Figure 7.1. Porcelain coffee cups with blue underglaze (stippled) and ghosting (solid lines): (a) 2–312, MD 7.3cm; (b) 2–334, MD 8.1cm; (c) R2–24, MD 7.9cm; 2–397, MD 6.9cm. (All drawings by N. Piercy).

underglaze blue decoration remains of a pattern once bright with enameled colors such as red, yellow, green or gold applied after firing. Enamel colors rarely are found on pieces that come from the sea, but, with patience and raking light, it is possible to trace their original location on the porcelains because the enamels last long enough to

partially protect the glazed surface from the effects of salt water. This kind of work must be done after the object has been desalinated and dried, so few of the Sadana pieces have had their "ghosting" defined as they are still in conservation.

Some larger bowls have undergone this process. Bowl 2–65, with day lilies and chrysanthemums preserved only as ghosts (solid lines) in a framework of underglaze blue leaves, flowering grasses, and panels is almost identical to Topkapi Saray Museum bowl TKS 4062 (Krahl and Ayers, 1986:1216, no. 3011). The Topkapi bowl is about 15% larger and is dated to the early eighteenth century. Sadana bowls with vine-leaf-shaped medallions and another with spiralling blue panels with intricate ghosted patterns (Figure 7.2) also find parallels in the Topkapi collection (Krahl and Ayers, 1986:1296, no. 3343; 1339, no. 3525). These examples are dated to the second half of the eighteenth century and 1730–60 respectively, and thus correspond closely to Sadana Island dating.

Some 66 smaller bowls of two styles also featured colors applied after firing. On one, a blue fence, decorative rocks, and floral elements remain; the other is decorated with flowers and floral sprays on the outside while inside, a central rosette of 10 alternating light and dark "petals" and, at the rim, a now-invisible diaper border enclosing blue-flowered panels complete the design.

The catalogue of enameled wares also includes shallow dishes and plates, today plain white, but originally painted with a central nosegay

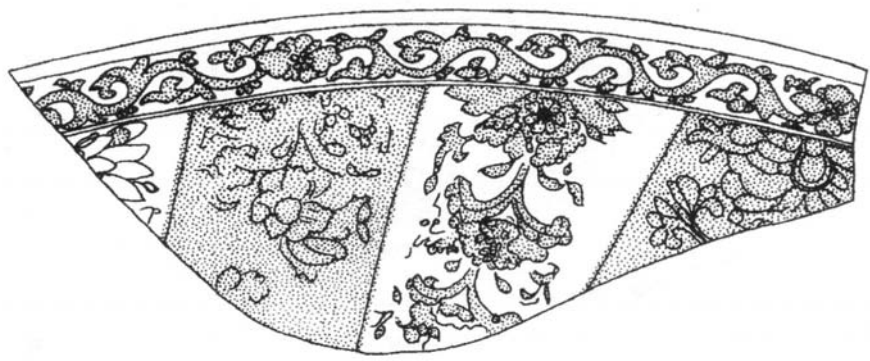

Figure 7.2. Porcelain bowl sherd 2–345 with blue underglaze (broad stippled bands) and ghosting (solid lines and stippled areas they enclose). MH 9cm. (Drawings by N. Piercy)

and undulating rim pattern (Figure 7.3). Forty-seven plates and 26 dishes with bracket-lobed and ridged rims have six pendants that extend to the cavetto. At least one large platter also belonged to these matching pieces. No matches have been located for the central design, but the border design, probably derived from shells and cornucopias, resembles that on a Qianlong piece dated to 1745 (Howard, 1994:84–5, no. 70).*

As noted in the descriptions of different types, the dating for Sadana Island porcelain spans a century according to traditional interpretations. It is unlikely that the porcelain itself was made over such a long period and traded only after 1760 because of the high and constant demand in the Middle East for precisely these goods. Because porcelain wares within this period rarely bear reign marks that could provide a precise date, it is likely that the Sadana Island ship's cargo eventually will help resolve new and existing questions about Qing Dynasty chronology as well as helping us to understand market forces

Figure 7.3. Porcelain plate 2–348 with ghosting. MD 27.3 cm. (Drawing by N. Piercy)

*Richard Kilburn graciously provided me with this reference.

within the Muslim world. Because dates offered by expert porcelain scholars range from the 1650s to the 1760s for similar pieces, it is likely that design changes followed a much slower calendar in the Middle East than that for porcelain sold to Europe and America.

More difficult to compare to firmly dated examples are the earthenware water vessels from the wreck (Figures 7.4 and 7.5). More than 800 *qulal* of some 30 different types came from the ship's stern quarter, and at least as many remain on the seabed for study in 1998. Efforts to find comparative material have produced few results as terrestrial archaeologists have provided almost no firmly dated examples of these jars, all of which are made of a similar gray-brown fabric with many inclusions. Many *qulal* are decorated with incised lines and applied

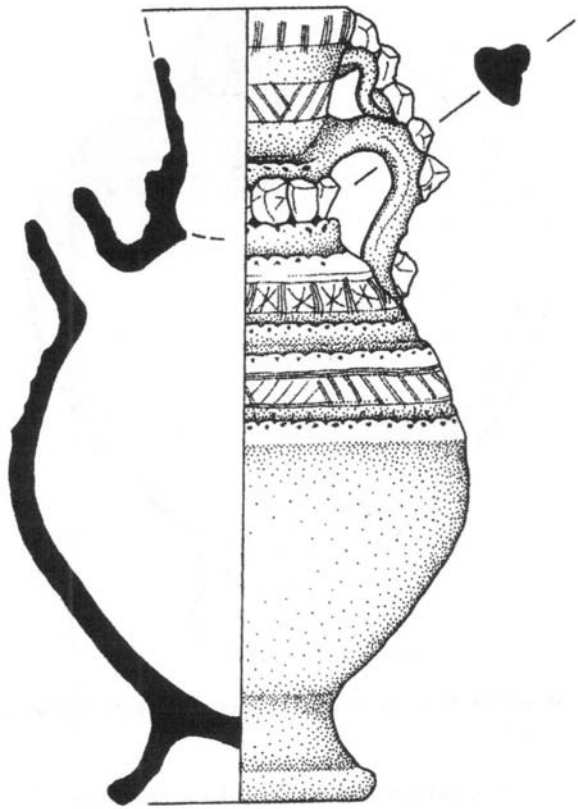

Figure 7.4. Earthenware water vessel (*qulal*). 1–643 with incised and applied plastic decoration. MH 23.1 cm. (Drawing by L. Piercy)

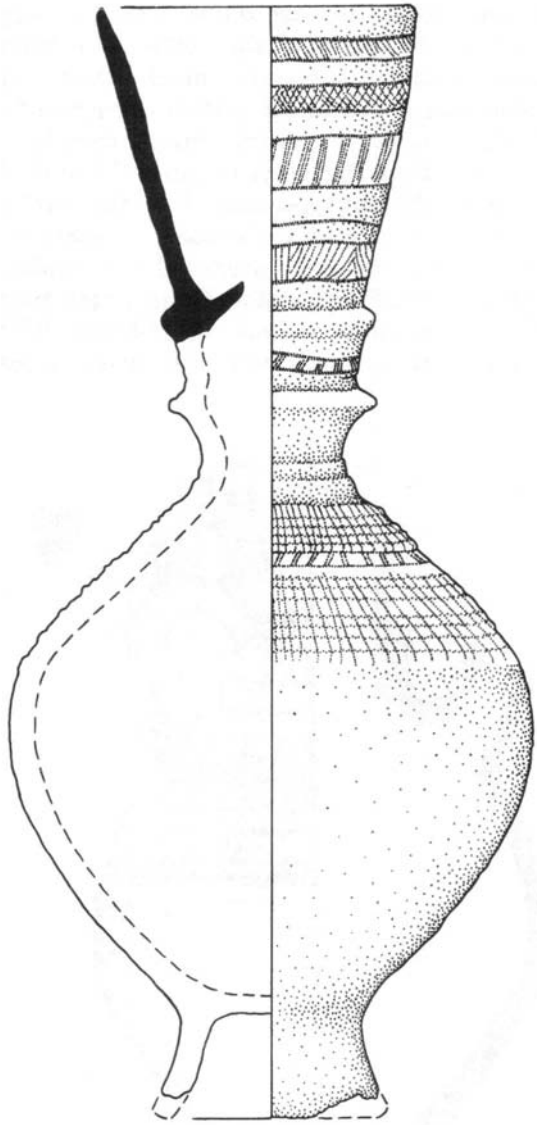

Figure 7.5. Earthenware water jug (*qulal*) 1–244 with incised decoration. MH 26.2cm. (Drawing by L. Piercy)

plastic clay features, and all were fired to a relatively high temperature. Shapes include pitchers (both with and without handles), goblets and a plain, long-necked type. Knobbed lids for both small and large (55 cm tall) examples also were excavated.

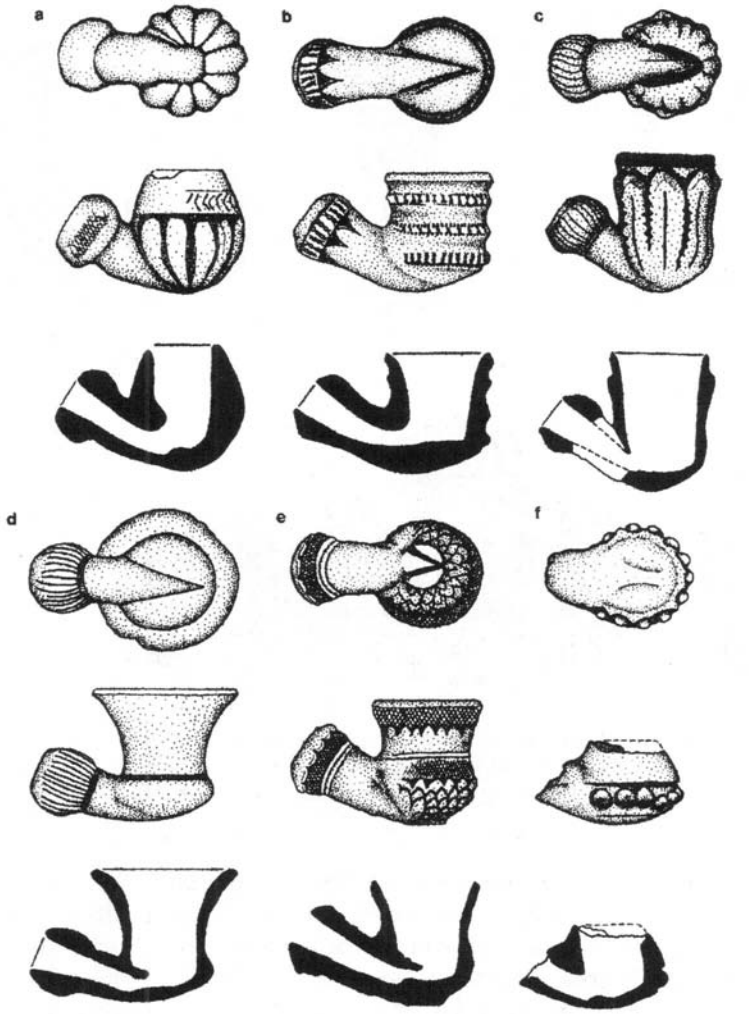

Figure 7.6. Tobacco pipe bowls: (a) MH 4.8 cm; (b) MH 4.6 cm (c) MH 5.3 cm; (d) black-slipped, MH 5 cm; (e) MH 4.8 cm; (f) red-slipped MH 3.2 cm. (Drawing by L. Piercy)

Qulal were packed in horizontal layers with the bases of one layer between necks of the layers above and below, much like modern sellers of *qulal* display their wares. Despite the wide variation in decoration, most of the types fit into fairly standard size ranges in terms of height and maximum width, which facilitated stacking of diverse styles.

Other earthenware objects include large storage jars of three types (*zila'*), fragments of glazed bowls, amphoras of *'Ballas'* type, flat-

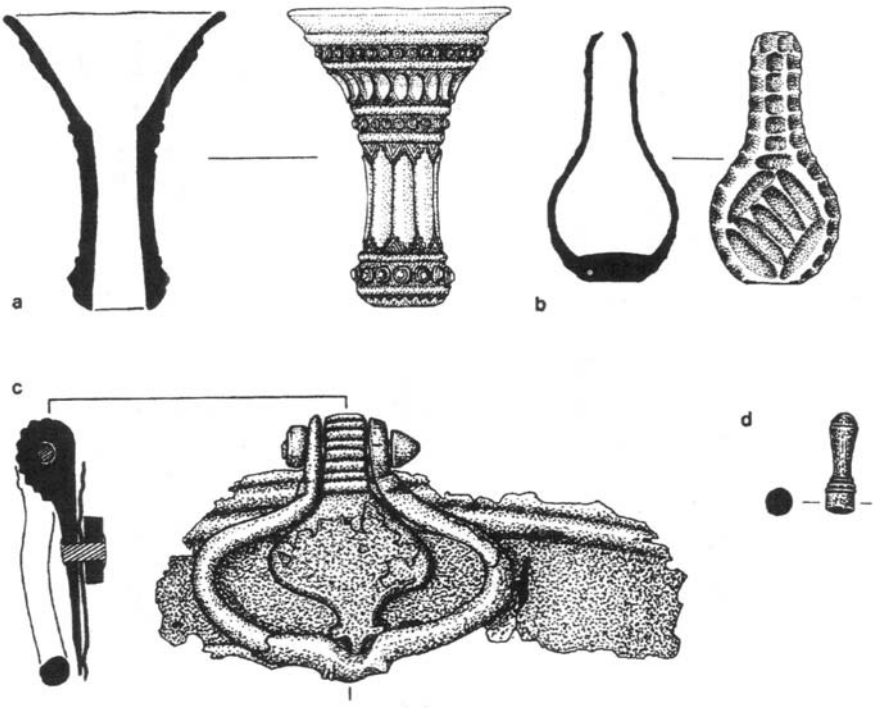

Figure 7.7. Miscellaneous artifacts: (a) red-slipped clay kurs (charcoal holder) for a water pipe, MH 9.4cm; (b) cut-glass flask 3–65, MH 8cm; (c) copper pan handle 6–29, MH 8.5 cm; (d) ivory or bone game piece 4–8, MH 3 cm. (Drawing by N. Piercy)

bottomed basins, incense burners, a spouted pot and decorated tobacco pipe bowls (Figure 7.6) as well as an elaborately carved and red-slipped charcoal holder (*kursi*) for a water pipe (Figure 7.7a). Aunique, handled jar with dark green, crazed interior glazing and a yellow and brown glazed bowl with a central spiral and lotus-like blossoms on "arms" extending from the center are the finest examples of tablewares.

Glass finds include a small, cut-glass flask (Figure 7.7b) and the remains of at least three dozen case bottles. Case bottles are typically used for transporting liquor; these imitate a standard European gin bottle. Standard European wine bottle bases and the neck of a large glass container of a type used for wine in Ottoman Turkey also are present.

Just over 50 copper metal artifacts have been recovered, ranging from a pair of inlaid bracelets to a large tray. Most of these objects came from one area in the starboard stern quarter, and may have been

stored in a galley much higher. Almost all seem to be related to cooking and serving food and drink (Figure 7.7c). Archaeologists recovered a coffee pot, two tripod grills lined with a ceramic insulator, tripod supports, pan handles, a kettle, ewers, basins, cooking pots, and dishes. A large sheave, an embossed lidded box (possibly an expanding lantern), the hasp for a chest, and an elaborately decorated brass box offer a view of other aspects of life aboard ship.

Inscriptions on copper finds offer the most precise evidence for dating the site. Three pieces bear Arabic names and dates, but only two of the dates are legible. Copper basin 6–48 is inscribed with 1169 [AH]/1755/6 CE and pan 6–51 with 1178 [AH]/1764 CE (Figure 7.8). Historically, this places the ship's last voyage after 1764, a time of increased foreign activity in the northern Red Sea during economic growth within Egypt.

Miscellaneous finds include a stone mortar, a carved bone or ivory game piece (Figure 7.7d), large and small wooden lids, a knotted leather bag, and iron fastenings and concretions. Noteworthy in this summary of finds is the paucity of personal possessions, which is indicative of a relatively small number of individuals aboard rather than the 600 pilgrims a ship this size could carry. Although some 3,000 artifacts have already been excavated, the ship itself was mostly empty when we began work, suggesting that it carried a predominantly dispersed cargo, probably organic in nature. Intensive recovery of bioarchaeological remains suggests several candidates for the missing tonnage.

Because the northbound Red Sea luxury cargoes so often were organic in nature, bioarchaeological remains from the Sadana Island Shipwreck receive a great deal of emphasis. Chance finds of rope, wood, charcoal, aromatic resin, a pitch-like substance, and coconut husks

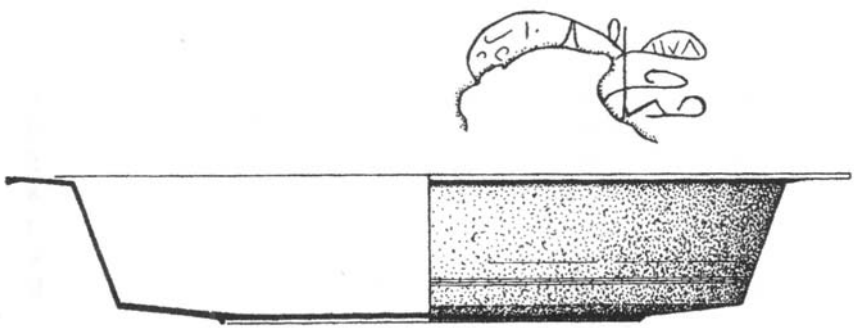

Figure 7.8. Copper pan 6–51 with inscripton and date, MH 4.7cm, MD 27cm. (Drawing by N. Piercy)

demonstrate the excellent preservation of this class of material. One of the more excruciating duties for team members has been emptying the hundreds of small-mouthed *qulal* and processing their contents by bucket flotation to recover plant remains. Systematic examination of all jar contents and dark-colored deposits in this way allows us to compare the gross morphological features and sections of recovered seeds to modern examples and identify their species or genus.

More than three dozen coconuts spilled from a storage area in the stern provide unusually challenging problems of excavation and storage as they are whole, but lack the fibrous husk and meat of a fresh fruit. Coconuts would have provided not only a refreshing treat for those on the ship, they could also have been sold as curiosities to Europeans in the markets of Egypt. Both the coconut milk and flesh could be eaten raw or incorporated in dishes from the western Indian Ocean. We also documented coffee beans, pepper, large quantities of aromatic resin, coriander, cardamom, and nutmeg from western Indian Ocean sources and, from the Mediterranean, hazelnut, grape, fig and olive. In addition, members of the grass, squash, onion and bean families expand the list of economically significant plant species carried on the ship. Beetles and weevils also were abundant. Archaeobotanical studies continue and focus on the cultural context of finds, as well as their scientific identification.

As we excavated layers closer to the ship's hull, we found a variety of animal remains including the remains of a leather bag tied with a knot and bones of several animal species, including young sheep/goat. Butchering marks on several bones prove their use as food; faunal analysis will be conducted as part of the conservation process in Alexandria.

THE HULL

Studying methods of ship construction gives us the opportunity to look at the most complex machines built before Industrial Revolution (Steffy 1994). The ship, as the largest and most technologically informative artifact on the site, provides us a unique opportunity to document a previously unrecorded shipbuilding tradition. Despite a long history of contact between Europeans, Egyptians, and others who sailed the western Indian ocean and Red Sea, separate shipbuilding traditions continued.

The Sadana Island ship is an example of type that is not European, not Arab, not American, not Chinese, and not Mediterranean. At

50m in length and about 17m wide, the Sadana ship could carry about 900 tons of cargo. Its heavy wooden construction suggests ample supplies near its home shipyard; identification of timbers may help to pinpoint the geographical origin of hull components. For example, up to three keelsons and sister keelsons (timbers stretching the length of the ship above the keel) are not unusual in either Mediterranean or European shipbuilding, but the Sadana ship had at least 12 end-to-end timbers we call stringers on the port side alone. Stringers are fastened only every 50cm to frames, and typify the comparatively light fastening pattern on a ship this size. Frames are spaced farther apart than on ships of comparable size and do not fit the planking well, with wooden shims filling gaps of up to 4cm. Iron fastenings are sparse compared to more well documented traditions, and yet we have not, to date, found any evidence of edge fastening. Further research and documentation of the ship will enable precise reconstruction of its features, teaching us lessons its builders learned centuries ago.

CONCLUSIONS

Excavations at Sadana Island contribute to a far better understanding both of Red Sea trade and of a single vessel representative of the largest class of ship active in the Ottoman Red Sea during the second half of the 18th century. An inscribed copper basin with a date equivalent to 1764 CE gives us a firm link to explore the historical aspects of Red Sea trade during this period although slightly earlier documents are also important in its study.

Analysis of the Sadana Island Shipwreck reveals a significant mini-history of Red Sea trade that dovetails into the greater scheme of international commerce between East and West. The Sadana ship's porcelain cargo suggests it was bought in broken lots at a secondary market, probably Jeddah or Mocha. Contemporary accounts of Mocha describe a busy harbor populated with "English Free Merchants, Portugueze, Banyans and Moors, and by Vessels from Bossorah, Persia and Muskat in Arabia *petrea,"* all of whom sought to trade in coffee and, some drugs, "such as Myrrh, Olibanum or Frankincense from Cassin, and Aloes Soccatrina from Socotra, liquid Storax, white and yellow Arsenick, some Gum Arabick and Mummy; with some Balm of Gilead, that comes from the Red Sea," according to Captain Alexander Hamilton, writing in 1723 (Hamilton 1723:41–2). As noted above, European ships bought Chinese export

porcelain designed for the Middle Eastern market to trade at Mocha and Jeddah for coffee.

Two-thirds of the value of Egypt's foreign imports came from coffee brought in via Suez. Between 30 and 40 ships made the trip between Suez and Jeddah each year; of these, 15 to 20 could carry more than 900 tons and, though they were more expensive to build than Nile or Mediterranean ships, could be paid off after only three voyages. The presence of large (30–50 meter long) porcelain-carrying shipwrecks at Sadana Island, Sharm el Sheikh (Raban 1971) and looted sites near Hurgada in the northern Red Sea and Jeddah suggests that there was a strong interest in moving Chinese porcelain and other goods by sea north of Jeddah, a point traditionally seen as the terminus of the sea trade from the Indian Ocean during this time (McGowan 1994; Raby 1986). Egyptians under Ottoman suzerainty controlled what was effectively internal trade until the late 18th century when European shipping began operating between Suez and Jeddah.

In 1670 the *ra'is* Ahmed owned two Indian ships at Suez, and in 1682, port chronicles mention a *markab hindi,* or Indian sailing ship, anchored in the harbor there (Raymond 1973:110, n. 5). In 1762, Carsten Niebuhr noted that of the 14 ships that operated between Suez and Jeddah, most were built in Suez where the industry was flourishing, but by the later eighteenth century, a French traveler commented that most Arab ships in the Red Sea were built in India (Raymond 1973:110). For much of the seventeenth and eighteenth centuries, strong commercial ties existed between Egypt and India, and it would not be surprising to find that Indian shipbuilding techniques were adopted by local Egyptian builders or that we are excavating an Indian ship at Sadana Island.

The continuing excavation of the Sadana Island shipwreck furnishes an opportunity to explore the nature of the ship, its cargo, and its crew and master. It also ensures that this part of Egypt's nautical heritage will be investigated and preserved while offering a new perspective on international trade and contact at a time of transition during the Ottoman period.

ACKNOWLEDGMENTS

The Sadana Island Shipwreck is a joint project of Egypt's Supreme Council of Antiquities and the Institute of Nautical Archaeology, funded in large part by The Amoco Foundation, The John and Donnie Brock Foundation, the Institute of Nautical Archaeology and a con-

sortium of corporate and private sponsors to whom we are extremely grateful. Thanks also are due to our dedicated volunteers, who fill almost all excavation positions, and to the hardworking archaeologists and inspectors of the Supreme Council of Antiquities who join us each summer in the Red Sea. Richard Kilburn, Beryl Joyce, John Carswell, Rose Kerr, and Regina Krahl offered invaluable guidance on porcelain studies and have my sincere appreciation.

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8

Daily Life in the Shadow of Empire

A Food Systems Approach to the Archaeology of the Ottoman Period

Øystein S. LaBianca

INTRODUCTION

In this chapter my aim is to present the case for a food systems approach to the archaeology of the Ottoman Empire. While this may strike some as being a very limited perspective, I shall try to show the opposite, namely that such an approach provides a powerful methodology both for investigating the "Ottoman period" as a historical era in its own right and for making the archaeology of this era relevant to a much broader scholarly audience. The case will be developed in the following manner: First comes a brief review of some background assumptions and definitions pertinent to understanding what is meant by a "food systems approach." This is followed by a discussion of macro-level issues having to do with how archaeologists think about and investigate the influence of Ottoman imperial interventions on the operation of local food systems. Next come some thoughts on some micro-level issues related to carrying out archaeological research on local food systems, particularly as it relates to understanding the response of indigenous peoples to Ottoman policies and interventions. Thereafter I discuss briefly some implications of the food system concept for understanding the impact of the Ottoman centuries on the local environment. The conclusion offers some reflections on the promise of a food systems approach to making the archaeology of the Ottoman Empire relevant to global archaeology and world history.

ØYSTEIN S. LABIANCA • Department of Behavioral Sciences, Andrews University, Berrien Springs, Michigan 49104.

A Historical Archaeology of the Ottoman Empire: Breaking New Ground, edited by Uzi Baram and Lynda Carroll. Kluwer Academic / Plenum Publishers, New York, 2000.

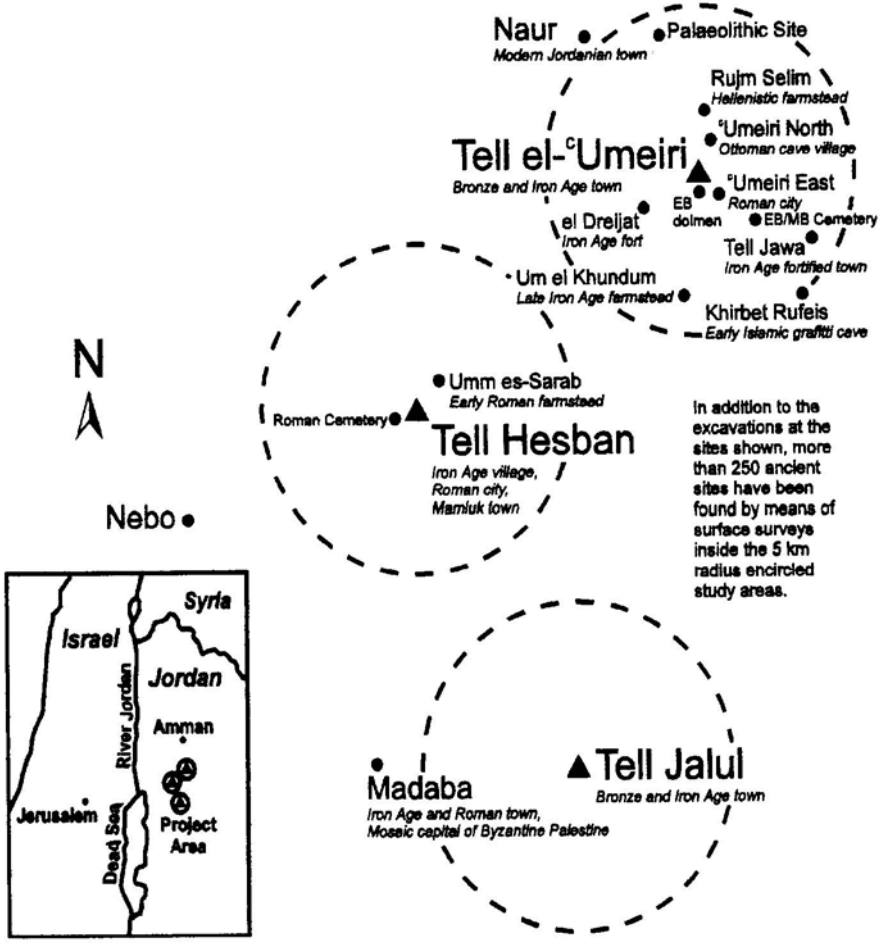

Figure 8.1. Madaba Regional Survey, Jordan.

WHAT IS MEANT BY A FOOD SYSTEMS APPROACH?

The first and most basic reason for why a methodology which is explicitly concerned with people's quest for food needs to be reckoned with by Ottoman archaeologists is that, throughout most of human history, it has shaped the daily lives of the vast majority of human

beings. Furthermore, attention focused on this quest leads inevitably to concern with the lives of the rural masses living in the shadow of empire. And since the lives of most elites in the past depended, directly or indirectly, upon various mechanisms for inducing the rural masses to produce a surplus of food, a food systems perspective provides a window on their lives as well.

What is meant by a food systems approach is something far broader than a concern simply with what people eat! This becomes clearer as one reflects on the implications of the following definition of the food system concept: A food system is a dynamic and complex unity consisting of all the purposive, patterned and inter-dependent symbolic and instrumental activities carried out by people in order to procure, process, distribute, store, prepare, consume, metabolize and dispose of food.[1]

The implications of this definition are manifold. To begin with, it provides a common frame of reference for thinking about all historical periods—the palaeolithic through the present. An important benefit of this is that it makes possible temporal comparison of food system processes. This is because local food systems are never static, but are always undergoing some sort of change. Such change is either in the direction of intensification or abatement depending on changes over time in the intensity with which a given local region is being exploited in order to provide people with food. Generally, as a region's food system intensifies, its inhabitants tend to become increasingly land-tied due to increased investment in plough agriculture. Consequently their residential patterns tend to become more sedentary. Intensification, therefore, normally is accompanied by sedentarization. Abatement is said to occur when a given region's inhabitants diminish their reliance on plough agriculture in favor of livestock production within a given territory or homeland. This generally involves adoption of more mobile residential patterns, or nomadization, whereby people, for the sake of their increased investment in pasture animals, turn to seasonal migration between watering places, ploughlands and pasturelands within a given territorial homeland. Such shifts occurred ubiquitously throughout rural landscape of the Middle East in the distant past, and surely also during the Ottoman period.

This leads to a second advantage of the food system concept, namely the fact that it brings under a common analytical frame of reference the various strategies employed by people to procure food—hunting, gathering, farming, herding, and trade. This makes the concept much less limiting than, for example, the concept of 'agriculture' which tends to be associated with sedentary production of crops

and husbandry animals. More often than not, when investigation of food getting practices is carried out under the heading of agriculture, it tends to lead to superficial or altogether inadequate consideration of the role of other methods of food procurement.[2]

A third advantage of the food system approach is that it leads automatically to a concern with how rural landscapes were utilized by people in order to procure food. It thus focuses investigation on patterns of land use and settlement in the hinterlands of human settlements. In other words, it forces the archaeologist to get off of her archaeological mound and out into the surrounding fields as a natural and complementary dimension of her research activities. Mention must also be made of the utility of the food system concept when it comes to fitting together and interpreting the results of archaeological excavations and surveys. In this regard, the above-stated definition leads one to understand more clearly the function of a wide range of rural structures (used for housing and protecting food producing households, storing their food and protecting their animals); pottery (used for storing, serving, distributing and serving food); stone objects (used mostly in some way in connection with food preparation); and animal and plant remains occur as they do in the archaeological record. The concept also helps link discoveries made by means of archaeological excavations to those made by means of regional surveys in the hinterland of a particular dig site.

There is much more that could be said with regard to all of the above points, and other points could easily be added to bolster the case for using a food systems approach when doing archaeology. What has been said, however, should suffice to give an idea of the scope of the concept and its relevance for understanding the activities of the rural masses and the elites of the Ottoman Empire.

CAN WE SPEAK OF AN IMPERIAL OTTOMAN FOOD SYSTEM?

One of the intriguing questions which follow from a food systems approach to the history and archaeology of the Ottoman Empire is the extent to which it is possible to distinguish analytically the salient features of an imperial food system? In other words, can we speak of an imperial Ottoman food system just like today reference is made to ‘the global food system’ (Warnock 1987) or the ‘American food system’ (Bodley 1996). In certain ways, this question has already been answered in the affirmative by economic and social historians who

have examined the development and implementation of economic policies by various Ottoman sultans and their administrations (e.g. Issawi 1980; Inalcik 1983).

There is a need, however, for closer cooperation between historians and archaeologists in addressing questions about the actual impact of such imperial policies on the grass-roots level of local food systems throughout the empire. Cooperation is needed, for example, to answer questions about the grass-roots impact of sporadic initiatives to improve the rural infrastructure necessary to protect, transport and sell agricultural commodities; to promote production and export of certain specific agricultural products from particular local regions; to regulate the migration of agricultural laborers in and out of a particular local region; to intervene in the pricing of agricultural products; and to impose various forms of taxation and tariffs on the population of particular localities. A complicating factor, in this regard, is the emergence during the Ottoman Era of the capitalist world system (Wallerstein 1990). What is complicating about this development is that it makes it harder to ascertain whether increases in production and export of agricultural commodities at the grass roots level were the result of successfully enacted imperial policies or local entrepreneurial initiatives responding to new opportunities created by the rise of the capitalist world system. For example, a compelling case for the role of the capitalist market in stimulating the development of large-scale commercial agriculture in the Ottoman Empire has recently been published in a collection of papers edited by Keyder and Tabak (1991).

Our efforts on the Madaba Plains Project to document the grass roots impact of Ottoman agrarian policies have involved three main lines of inquiry.[3] The first has been documentary research by members of our team aimed at reconstructing the history of re-settlement and economic growth inside our project area over the past century and a half (Russell 1989; Abujaber 1989; LaBianca 1990:53–106).[4] Sources for this history have included imperial and local government administrative records; the accounts of nineteenth century geographers and travelers to our project area; family archives of early settlers; and interviews with elderly local residents.

The second line of inquiry has involved attempts to learn more about the history of rural buildings in our project area from the Ottoman period such as the fortified residential compounds known locally as *qusur* or *qasr* (LaBianca 1990:201–232). One of these appear to be over two hundred years old, namely the one located near Ain Hesban which belongs to the Adwan tribe—a tribe whose ancestors

existed in Jordan throughout the entire Ottoman period. It served as a sort of headquarters for the tribe, having been one of the residences of the tribal chieftain.

The third line of inquiry has involved the use of a metal detector to search for coins from the Ottoman period throughout our project area. A major reason for implementing this procedure was because of the disappointing results of all other archaeological attempts to discover finds which could be clearly associated with initiatives of the imperial Ottoman administration. We started this procedure in the summer of 1994 and found over three dozen coins as a result, many of which could be positively identified as being from the Ottoman period (Bochenski 1994, personal communication).

When the results of the various archaeological undertakings mentioned above are brought together they contribute preciously little in the way of direct archaeological evidence for Ottoman imperial intervention in the project area.[5] There are no official buildings or public works which can be identified as having been built because of Ottoman imperial interventions in the area. The only tangible evidence of any kind linked more or less directly to the imperial powers are coins. When it comes to indirect evidence, however, the picture is different. For example, the very fact that villages and towns came into existence again in the project area toward the end of the nineteenth century—after four centuries during which there were apparently no permanently lived-in towns or villages in the project area—is attributed by many contemporary witnesses to renewed efforts by imperial Ottoman rulers to provide protection for agricultural villagers and townspeople as far away as Central Transjordan. One could infer from this, therefore, that during the earlier centuries of Ottoman administration there was little or no initiative on the part of the imperial administration to promote the welfare of settled folk, whereas toward the end of the nineteenth and during the early twentieth century many pro-settler initiatives were implemented.

Interestingly, these late Ottoman imperial interventions aimed at fostering settlement of villages and towns appear to have gone hand in hand with efforts on the part of local entrepreneurs to cash in on the rising demand for grain brought about by the rapidly expanding capitalist market economy (cf. Abujaber 1989; Schilcher 1991). Thus, even as far away as Central Transjordan, one can detect the dual influences of the imperial Ottoman administration and the emerging capitalist world economy. From this particular case it would appear, in fact, that the interventions of the Ottoman imperial administration were intended to promote—whether by design or accident—linkage of

the grain markets of Transjordan with those of the capitalist world economy.

CAN WE SPEAK OF AN INDIGENOUS RESISTANCE TO IMPERIAL INTERVENTIONS?

As important to our understanding of the Ottoman Empire food system as is the concern with imperial policies and interventions is the need to grasp the response of indigenous residents to their predicament as subjects. In this respect, a distant backwater in the imperial landscape such as Transjordan provides a particularly good opportunity, although the phenomenon of resistance was surely widespread throughout the empire. It appears, however, that the region of greater Syria—which typically includes Transjordan—was a region in which resistance was rampant. Schilcher (1991:195) writes:

> The fact that Syria's peasantry continued to rebel, generation after generation, is perhaps the strongest indication that something in their local social, economic, and political arrangements sustained them and gave them the aspiration and motivation to continue the struggle. How else can we explain the fact that the Syrian peasantry of the late Ottoman period retained a stronger bargaining position vis-a-vis the government and vis-a-vis interlopers than was retained by peasantries of peripheralized economies elsewhere in the region, or, for that matter, in many parts of the world?

What, then, is this "something" which has sustained the inhabitants of Transjordan in their quiet resistance against Ottoman policies and interventions in their homelands. It is, as we shall see, a particular cluster of sentiments and practices—a set of indigenous hardiness structures—by means of which the inhabitants of this area have become inured to fatigue and hardship and thus have managed to persist and at times prosper despite greatly fluctuating political and economic fortunes.[6]

Thus far we have been able to delineate at least seven such hardiness structures—all of which have been integral to local resistance. Important in this regard has been their role in facilitating movement by individual households and larger groups along the sedentarization-nomadization continuum. I turn next to briefly describing each one of these seven secret weapons of the indigenous resistance.

- *Tribalism.* First, and most important by far, have been their kin-based social networks as members of large extended

families and tribes. These kin-based networks have provided shepherds and farmers alike with a highly flexible mechanism for welding people together for their common good, whether on the open range as groups of nomads or on cultivated lands as members of villages and towns. It has provided a means by which small groups of kin have been able to adjust successfully not only to a fragile natural environment, but also to shifting political landscapes and very uncertain economic conditions.

- *Multiresource economy.* Another secret of their survival has been their mixing of production of cereals and tree fruits with raising of sheep, goats, donkeys, and camels. This ancient agricultural regime, which goes back at least five thousand years, has helped them to easily shift back and forth between agricultural and pastoral pursuit. They have thus been able to adjust their livelihoods to maximize chances of survival in the face of constantly shifting economic and political conditions.
- *Fluid homeland territories.* In order to pursue such a variety of economic options, both settled and nomadic tribes have tended to maintain fluid homeland territories. Although a somewhat fixed center of gravity may have prevailed at any given point in history, the outer boundaries of homeland territories have been allowed to continually change in order to accommodate new social, economic or environmental realities.
- *Residential flexibility.* Over the centuries people have used stone houses, residential caves and tents to live in. As the population has sedentarized or nomadized, the amount of time they spend living in one or another of these residences in any particular year would vary.
- *Small-scale water sourcing.* Because of the risks involved in constructing and maintaining the sorts of elaborate water works developed, for example, by the ancient Romans, the indigenous population has for the most part relied on small-scale water sourcing arrangements—access to natural springs and streams and re-use of ancient cisterns.
- *Hospitality.* The emphasis on hospitality for which the Arab population of Jordan is famous has its roots in more than good manners. By means of their generosity to fellow tribesmen and strangers, people have been able to accumulate I-owe-you's which can be banked until such a time as a pay-back favor can

come in handy. Also, by means of hospitality, information which is vital to their existence as shepherds and farmers may be shared.

- *Honor.* The institution of honor, whereby members of families and tribes demonstrate their solidarity with each other as a group of kin, also has a very practical function in tribal society. Its built-in system of rewards and punishments serve to assure that individuals and families don't shirk their obligations toward one another as kin. Cooperation in feuds is only one of many examples of the operation of this institution at work.

The point to be stressed here is that all of these practices and institutions have evolved and persisted at the grass-roots level in Jordan over a very long time. In other words, they did not come about just because of the nominal Ottoman occupation of the country. Indeed, these structures were all well in place by the time of the first world empires in the ancient Near East in the third millennium B.C. In the particular case of Transjordan they have become particularly deeply ingrained in the collective memory of the country's inhabitants as a result of three synergistically related uncertainty producing factors: namely the unpredictability of the annual rainfall; the frontier conditions created by the country's proximity of the Arabian and Syrian desert; and its position astride a much fought over intercontinental landbridge. This third factor accounts for why the country has experienced almost continuous foreign domination since the second millennium B.C.

Pivotal to the research which has led to the delineation of these indigenous hardiness structures has been the same food system perspective which guided our research on imperial intervention in the local situation. It was this perspective, for instance, that led us to concentrate effort and time on trying to understand the "gaps" in the occupational history of Tell Hesban. These were the centuries during which nothing or very little in the way of accumulation of occupational debris occurred on the tell. Significantly, the most recent such "gap" was that between the strata representing the Mamluk and the early modern period—the centuries of Ottoman domination.

To discover how people managed to meet their basic needs for food, water and shelter during this most recent "gap period" we launched a survey aimed specifically at learning more about the history of migratory food production or transhumance in our project area. This, in turn, led quickly to the discovery of the crucial role which habitation caves had played in people's lives during the Ottoman period. To learn more

about these and life in general during these centuries, we began to carry out extensive interviews with older residents who remembered having lived in the caves when they were younger. Thus, gradually the clues to their hardy existence—as represented in these seven structures—began to come to light.[7]

As for the obvious question of why the majority of local residents chose not to live permanently in villages and towns throughout most of the Ottoman centuries, the answer is that it didn't make much sense in this particular corner of the empire! To do so meant being constantly harassed either by imperial Ottoman taxation officials or by enemy tribesmen. Consequently people opted to resist by following the time-honored practice of living lightly and simply on the land. In other words they opted to seek shelter in tents, caves and abandoned ruins and to rely on pasture animals and cereals produced during winter months in the fertile valleys behind their seasonal cave villages. In an indirect sort of way, this situation adds further to our understanding of the agrarian policies of the imperial Ottoman administration!

HUMAN-ENVIRONMENT INTERACTIONS

There is one more important line of research which a food systems approach facilitates, and that is inquiry concerned with the human impact in a given locality on the natural environment and visa versa.

What makes this approach particularly helpful in this regard is that, as a methodological framework, it has its roots in ecosystem theory, Thus it leads naturally to a concern with short and long-term changes in the natural environment and the role of humans in bringing them about.

Some intriguing questions arise in this regard when attention is focused on the Ottoman period. For instance, is it fair to assume as some scholars have that the natural environment simply deteriorated in Palestine throughout the Islamic centuries? Is it possible that a certain amount of regeneration of the environment might have occurred as a result of the low intensity with which at least the Transjordanian landscape was exploited during most of this era?

What a food systems approach provides is a set of hypothesis about the processes by which the environment gradually was changed to how it appears today. It posits that such change occurred in large measure as a result of the cyclic episodes of intensification and abatement in the local food system—accompanied as these were by cycles of sedentarization and nomadization. It posits further that as each

such episode took place, it set in motion spasms of rapid environmental degradation followed by rest periods during which the landscape underwent partial regeneration. The present-day rather barren appearance of the landscape of Transjordan is thus the cumulative result of multiple such spasms and rests over the past ten thousand years. To what extent the Ottoman centuries added to this cumulative impact remains very much an empirical question.[8]

THE RELEVANCE OF OTTOMAN ARCHAEOLOGY

In conclusion, I believe firmly that archaeologists working on the Ottoman Empire can reach across the distances which separate theme in terms of location of their projects and time periods of interest. One way to do so—although certainly not the only way—is by means of a common concern with local food systems. This approach also has the merit that it links the concerns of Ottoman archaeologists with those of global archaeology and world history.

This volume's introduction asks whether the archaeology of the Ottoman Empire should be regarded as the archaeology of an empire or a time period. My view is that it should be both. Surely archaeologists working anywhere in the empire must be concerned with looking for subtle and obvious signs of imperial intervention in their localities. Such interventions may be more pronounced during some time periods than during others, thus the temporal dimension is also going to be crucial. In the case of our Transjordanian test case, it seems one can never quite eliminate from the picture the existence of the empire, for as we have seen, its policies appear to have had a lot to do with how people lived throughout the entire period of the empire's existence.

About the relevance of archaeology of the Ottoman period to archaeologies of the more distant past and to mainstream Middle Eastern archaeology there can be no doubt. Again, from the vantage point of our work in Jordan, what we have learned about "people living lightly on the land" from our research on the Ottoman centuries has been essential to developing hypothesis and research strategies for studying earlier episodes of low intensity occupation in our project area. The importance of the Ottoman period for mainstream Middle Eastern archaeology, therefore, lies in that it offers a near-at-hand opportunity—in terms of data accessibility—for archaeologists to learn about the dynamics of pre-industrial complex society in the Middle

East. Research on this era is also essential to archaeological undertakings which take seriously the challenge of advancing understanding of long-term patterns of cultural change throughout the world.

There can also be little doubt about the relevance of Ottoman archaeology for the current debate on the aims and political uses of archaeology. One of the valuable contributions of the post-modern critique is precisely the fact that it has brought to our attention the Eurocentric bias of traditional Orientals archaeology. It is precisely this bias which has caused Ottoman archaeology to languish in comparison to research on earlier "more important" periods such as the biblical or the classical periods. In our own case, it was only as we began to focus our research on a problem which was equally applicable to all historical periods that we began to take seriously the Ottoman centuries.

When it comes to the feminine critique of archaeology there is much to be said for a food systems approach. Because of its concern with the complete range of instrumental and symbolic activities carried out by people in their quest for food, it automatically brings the contribution of women, and also children, to the fore. It thus gets beyond the traditional masculine concerns with fortifications and building remains, something which actually has been crucial to our attempts in Jordan to operationalize research on the Ottoman period. Indeed, from this period, it is more the work of women than the work of men that has left residues for archaeologists to study. I would like to conclude by explaining what I see as being the merits of a Marxian world systems approach as compared with the food systems approach which I have advocated here. In my view, the world systems approach is useful as a means to understand the oscillations during historical times in the operation of local food systems. It provides some of the answers to why during certain periods we see a pumping up of the local food system and during other periods we see a slacking off in the intensity of this system. The approach does not provide an adequate framework for operationalizing research on all historical periods, however. Furthermore, it is inadequate as a tool for operationalizing research on pre-industrial agrarian society in the Middle East because of its emphasis on unequal exchange in a hierarchy of world markets. During some historical periods, and certainly during prehistoric times, this assumption simply does not apply. Finally, however, what I find most useful about the food systems approach is that it really is not grounded in any particular deterministic dogma. I view it rather as a heuristic, as a thinking aid for helping archaeologists to think integratively about the wide range of materials they

uncover in their surveys and excavations. This is because, as noted earlier, the vast majority of the finds we encounter as archaeologists—especially those of us working in rural contexts—can be set in some sort of functional or symbolic context using this perspective. I believe that alone, the food systems perspective is insufficient for explaining long-term cultural changes. While it is useful as a framework for operationalizing research on rural regions and settlements regardless of time period; and while it goes a long ways toward helping to make some sort of integrative sense out of a wide range of artifacts and biofacts, it has to be supplemented by other theoretical orientations in order to provide adequate explanations for the cultural patterns it helps to uncover. Such supplementary frameworks might include the role the capitalist world system; or it might include the role of religion. For example, the archaeology of Transjordan in the first millennium A.D. cannot be adequately understood without reckoning with the influence of Christianity and Islam.

Thus, to conclude, no single framework is likely to provide all the answers to the complex task of understanding the Ottoman world. My aim here has merely been to remind us as scholars comfortably at work in our offices that for the masses living in the shadow of empire, the quest for food was more than a just brief interruption lasting a few minutes every day. For the majority of these men, women and children, whose lives we are trying to understand by our scholarly endeavors, it was what daily life was mostly all about!

ACKNOWLEDGMENTS

I would like to applaud Uzi Baram and Lynda Carroll for taking the initiative to "break new ground for an archaeology of the Ottoman Empire." I have long felt the need for such an effort and am glad that, thanks to their efforts, the conference was organized and now has been published.

NOTES

1. For a discussion of the intellectual roots of the food system concept and its implications for archaeology, see LaBianca (1990:1–30, 107–134; 1991).
2. The food system concept is also less limiting than the concepts of 'subsistence' and 'livelihood,' for whereas the former is commonly associated with food production primarily for the sake of survival; the latter has the drawback of being too broad—of referring to any type of work that a person does to earn a living.

3. The Madaba Plains Project is a large-scale archaeological investigation of the territory located between Amman and Madaba in Jordan (e.g. Geraty *et al.* 1987 and Herr *et al.* 1991). It began in 1968 with excavations at Tell Hesban, and has expanded over the years to include excavations of two other major tell sites, namely Tell el-Umeiri and Tell Jalul. In addition to the excavations undertaken at these major sites, their hinterlands have also been intensively surveyed and a number of small-scale soundings of farmsteads, habitation caves, cemeteries and other ruins have also been carried out. The project is sponsored by a consortium of international educational institutions headed by Andrews University. Sources of funding includes numerous private donations and the National Endowment for the Humanities.
4. By project area I mean first of all the hinterlands located within a radius of five kilometers of the three major tells, namely Tell Hesban; Tell el-Umeiri and Tell Jalul. These territories have been intensively scrutinized by means of surface surveys and soundings over ten seasons of fieldwork. The goal of much of this work has been to reconstruct the history of landuse and settlement in order to illuminate the temporal dynamics of the local food system.
5. I am now speaking strictly about the territories surveyed by our team as described in the previous note.
6. I have written about this phenomenon elsewhere in a paper entitled "Indigenous Hardiness Structures and State Formation: Towards a History of Jordan's Resident Arab Population." The paper was originally presented at the Third Nordic Conference of Middle Eastern Studies held in Finland in June 1996. It can be accessed on the World Wide Web.
7. For a more detailed account of the research which went into discovering these structures see LaBianca 1987 and 1990.
8. I discuss these proposal in greater detail in a paper presented in June 1996 in Torino, Italy, at the Sixth Annual Conference on the History and Archaeology of Jordan. The proceedings of the conference is being prepared for publication by the Department of Antiquities of Jordan.

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9

Transformations, Readings, and Visions of the Ottoman Mosque

Alison B. Snyder

INTRODUCTION

Buildings can express and capture the essence of an epoch. Cultures display their social, political, religious and artistic foundations through their built structures. Power and strength may be codified and packaged for regional consumption and in this way the religious building is imbued with layered meanings. During the fourteenth through sixteenth centuries, the Ottoman mosque underwent substantial design transformations. To investigate these, I am interested in connecting an historical and theoretical architectural perspective with archaeology. Though this study is primarily concerned with the religious building typologies developed during Ottoman times, these structures remain in the extant landscape.

The allure and mystery behind the persistent contradictions and social conflicts inherent in today's Turkey with its enduring ancient traditions can be viewed through the ubiquitous mosque (*cami*). When studying some of the existing literature on Ottoman architecture, there are several who have written on specific buildings, their elements and the societal factors surrounding them. Yet, there are three to whom I will first call attention to, as they have written copiously on this broad subject as well as on the specifics. It appears that most scholarly work dealing with the Ottoman mosque is primarily concerned with experimentation in structural technology (and then current capabilities) as the major catalyst for producing

ALISON B. SNYDER • Department of Architecture, University of Oregon, Eugene, Oregon 97403.

A Historical Archaeology of the Ottoman Empire: Breaking New Ground, edited by Uzi Baram and Lynda Carroll. Kluwer Academic / Plenum Publishers, New York, 2000.

new design configurations, mentioning light and lighting as a byproduct (for example, Godfrey Goodwin's 1971 *A History of Ottoman Architecture,* Dogan Kuban's 1985 *Muslim Religious Architecture: Development of Religious Architecture in Later Periods* and a 1997 paper in *Muqarnas,* and Aptullah Kuran's 1986 *Sinan: The Grand Old Master of Ottoman Architecture*). To date, there has been no formal analysis that traces mosque design transformation during the fourteenth through sixteenth centuries in Turkey especially with regard to light.

Giving credence to the concept of looking at how light is handled with respect to the design of ancient structures, one might consider the best of current architecture. Twentieth-century architects around the world have worked with and have been inspired by designing with light in their religious (and secular) buildings. Perhaps the most well-known are Le Corbusier, Alvar Aalto, and Aero Saarinen, as well as, current architecture such as Tadao Ando's or Steven Holl's chapels, and Louis Kahn's or Pietro Belluschi's synagogues. (Others such as Jean Nouvel, Norman Foster, and Ricardo Legorreta consistently use light to inspire their secular designs.) The essence of light has and continues to be explored literally and metaphorically by many authors, philosophers, scientists and lighting designers. By focusing on the influence and perception of light with regard to the designing of architecture, and here, specifically the mosque, a richer understanding and more comprehensive view will be gained. Look into these buildings in a way that you may not have before to see that both natural and man-made (or manufactured) light may be considered the protagonists of mosque design.

In this study, light becomes the prime catalyst for structural innovation, for changing spatial qualities and for effecting the temporal aspects of Ottoman formalism. The study of light as a primary architectural element stresses a departure from the more traditional and typical methods of architectural or archaeological analysis usually based upon the tangible. Light is ever-present and is a most elusive architectural element; and yet, it can be shaped and used in a variety of ways. Religious buildings embody rational humanistic and visceral spiritual ideals. Though they may retain and employ some secular stylistic or historically recognizable architectural forms, they differ from the secular in an ethereal way. A study of light and form-making from an architectural and archaeological perspective therefore exposes several viewpoints. By focusing on the use of and need for light, a more enhanced model of how one looks into buildings is suggested and may result in a different way of 'seeing.'

There are also general implications and meanings generated by a study of light and building structure. Calling both of these essential building components, allows them to form a basis for research that may be germane when analyzing ancient or modern, and religious or secular structures. In buildings from other past (and existing) cultures, the way light is controlled may be the basis for analyzing the function and usage of specific rooms and areas as well as their level of importance. The discovery of natural and manufactured lighting techniques are as important as other independently found material culture. For instance, one might also analyze a structure by looking at the siting or environmental orientation along with its relationship to other buildings, the selection of materials, the general layout and procession of space, the conceptual theories behind it and its aesthetics. Then, based upon some or all of these elements, symbolic and rational meanings may be formulated with levels of meaning to recover that are both visible and non-visible (Locock 1994).

Is this study of the architectural implications of light archaeological? Can the study of the usage and meanings behind these structures be included in an archaeology of the Ottoman empire? Many structures built during the Ottoman Empire still exist in many of the regions once under its rule. Remnants of Ottoman lifestyle and culture persist though the Republic of Turkey has been in existence since the early 1920's. Archaeologists, therefore, have the advantage of this recent Ottoman history with much of the material culture, such as architecture, intact. By deliberately focusing on this as a continuum, these monuments implicitly embody clues towards function, spatial usage, regional context and a relationship to economic expenditure. If archaeology is the recovery and study of previous cultures through either excavation and/or extrapolation of information from material culture and text, this study re-exposes a changing religious architecture to form a broader archaeological analysis of the past with a simultaneous regard for the present. To examine these structures (chronologically over approximately three hundred years) is to express formal and theoretical means of comprehending and reinterpreting their usage, space and design with a particular relationship to light. Layering of this information as an archaeological 'palimpsest' allows for a unique product.

The connection between a changing architectural form with respect to imperial ideology (and cultural necessities) needs to be addressed. This would will be hard to trace, but size and configuration undoubtedly relates to changing Ottoman requirements. Was the praying population (and the liturgy) at least partially responsible for

some of the formal stylistic or symbolic changes? Were the designers, be they engineers or architects, working on their own ideas of aesthetics and use of geometry rather than providing purely functional solutions? This study seeks to consider some of these issues.

As mentioned above, several historians of Ottoman architecture have written on various aspects of Ottoman mosque design. The direction on which some have focused in relation to structure and sometimes light is different from the premises put forth in this study. Authors such as Goodwin, Kuban and Kuran as mentioned above, as well as Ara Altun (1990), Jale Erzen (1986, 1988), Gulru Necipoğlu (1985, 1993), and Arthur Stratton (1971), support beliefs that design change is a result of wanting to innovate structurally in order to achieve certain other goals. Some discuss the relationships between the spread of imperial power and cultural or social necessities, as well as, an interest in perfecting an aesthetic, in the context of design change. The result of bringing light into structures is discussed by some, though in a less than systematic way. Only Orhan Bolak, whose work is covered in later research produced a study based upon light in six Istanbul mosques, yet his methodology and the thrust of his arguments are quite different than in this study. The previous works augment this research; yet new analyses come about by systematically deriving a variety of meanings from a much larger sampling over a much longer period of time.

The following are brief critiques of how mosque design has been previously analyzed. This topic is certainly a complex one, so only some of the issues can be dealt with here. Also, there is quite a lot of material on the sixteenth century during the apex of the Empire when the most well-known architect, Sinan (1505–ca. 1588), had a fifty-year building history which enabled him to have the major influence over Ottoman mosque form. It should be noted that Goodwin, Kuban, Kuran and Altun have concentrated on other centuries, as well as the sixteenth century, with other scholars remarking where an earlier building type precedent is important to their argument. In the discussion below, specific mention is made when an author refers to light—most of which is natural—as manufactured light is rarely noted.

In Goodwin's comprehensive volume on Ottoman design, he invokes the imperial conquest, its building traditions, and use of materials while light is only sometimes described. At times he will actually give a sense of how a window type, or even a hanging fixture, distributes light into the immediate space, but there is no effort to do more than describe aesthetically or to interpret over time or really compare within the typology. There are also no direct statements relating these

descriptions to structural changes except in the most general way. Kuban, has written a great deal on Ottoman culture and building structure with regard to their meanings. He sets up many comparisons and contrasts between Ottoman building precedents and contemporary European movements such as the Renaissance. Included in some of his descriptions of mosques are passages which say Sinan's sixteenth-century mosques are filled with light in comparison to a church; or that the façade elements are there to aid in shaping the total ensemble based on the volumetric centrality of being capped by the semi-domes and main dome above. At different times, Kuban says that providing light through masterful fenestration was functional and efficient (providing a relationship between the exterior and interior), as well as, achieving just the right amount of visibility to see all the articulation of interior detail. Yet, with all his attention to light he writes about it in a beautiful yet general fashion, rather than truly discussing and tracking the incredible changes that have been purposely worked into the designs. Aptullah Kuran's research on Sinan is perhaps the most extensive survey, mostly forming a basis of support for the ubiquitous 'classical style' or centralized single-dome design noted before. He, like several of the others, believes that the dome is most important element in the design of the Ottoman mosque. Kuran is interested in 'conceptual inventiveness' in theory, but says the largeness of these buildings increased the need for the articulation of the facades. This is another allusion to the fenestration being a byproduct, as opposed to conceiving of methods to achieve more light from the outset.

To continue with this review of the literature, Ara Altun's survey of mosques built by Ottoman and other Muslim sects during the fourteenth century or earlier considers spatial change with regard to function, regional power structures, available technology and aesthetic while barely mentioning light. Jale Erzen is interesting in that she is actually concerned with the transformation and composition of wall surfaces in sixteenth-century mosques. While invoking the European movement, Mannerism, her discussion is concerned with what she calls stylistic changes that result from the structure that supports the dome. She follows Sinan's work and breaks it into three time phases related to the plan or base forms for the domes (square, hexagon, octagon). Of all of the façade elements, she singles out the windows and their rows and groupings, as most effective in expressing the hierarchy of the spaces in Sinan's evolution of design yet she does not discuss the quality of the light and lighting techniques as fully. One also wishes that this work on prototypical window shapes and types

were compared visually through many more diagrams so as to arrive at even more layers of meaning than is discussed. Necipoğlu, on the other hand, describes mosque design and structure mostly through imperial rule as well as the role and goals of the architect. Her writing touches on the fifteenth-century mosques, with the rooms that housed caravansary visitors and dervish sects, as they gave way to the centralized schemes of the sixteenth century that represent the later, more centralized Ottoman government. While covering the issues of monumentality in the sixteenth-century Suleymaniye mosque, she does include one passage written about the divine light entering the qibla wall (the wall oriented towards Mecca which contains the symbolic mihrab niche) and the 'heavenly oil lamps' lighting the night time interior but, this poetic yet scant mention of light is only a small part of her analyses regarding the changes in mosque design. Perhaps the best-known biography of the architect, Sinan, is by Arthur Stratton. He describes Sinan's work poetically and functionally. While, it seems, Stratton is seeking to explain as much as possible on the impetus behind a specific mosque, he will at times give a count of the windows and describe their arrangements. But, while he regards the changes of form in the Ottoman Mosque worthy of praise, he, like some of the others does not seek to argue these changes based upon the desire for light and lighting techniques over engineering and style.

To finish, to the best of my knowledge, Orhan Bolak (1967) is the only person to attempt a study of light with regard to Ottoman mosque design. In his publication, the results of light and lighting are examined through a selection of five Istanbul sixteenth- and seventeenth-century Ottoman mosques along with the Byzantine church turned mosque, the Haghia Sophia. He states the major methods of bringing in natural light and the need for hanging light fixtures. He also compares and contrasts church design from contemporary and several historical periods. Yet, this study does not trace a development sequentially nor does it cover earlier mosque typologies. Bolak's argument is mostly comprised of qualitative and quantitative analyses based upon taking a series of light level readings inside each structure with hand-held lumen-measuring monitors. While also confirming that the use of domes functions as good light distributors Bolak's work is impor-tant because of his inventive use of light lumen technology to try to prove what others have said through observation and research (the compared results found that the later mosques allowed more light in), but the study lacks a comprehensive body of buildings to allow for a broader diachronic investigation of light and formal change.

DOCUMENTATION AND STUDY

Research has, so far, consisted of visiting nine cities all located in the modern republic of Turkey to document a selection of existing mosques. The mosques are located in the three Ottoman capitals—Bursa, Edirne, and Istanbul, and in significant Ottoman provincial capitals such as Amasya, Manisa, Iznik, Kayseri, Konya, And Sivas. Of the more than thirty-five structures surveyed, only a few are selected for discussion here.

To document and record the usage and perception of the interior spaces; and, the use of, or absence of light (both natural and manufactured), color and black and white photographs were taken at different times of the day and evening. Photographs attempt to capture and explain the perception of spatial changes resulting from light as realistically as possible. They show the materiality of the enclosures, the aesthetic detail and the other elements of design. Drawings, such as plans and sections, are used to show the relative scale of spaces throughout the entire building. Further interpretive and analytical drawings utilize the plans and sections to express other information related to the layering of light and lighting as they impact different aspects of a design (see Figures 9.1–9.3).

MOSQUE FORMS AND LIGHTING TYPES: A VOCABULARY

The evolution of Ottoman mosque forms will be categorized here through three functional or architectural descriptions with the third form also describing a kind of ideology. The first mosque type is the 'multi-cell' which mostly occurs during the fourteenth century after the break-up of the Selcuk Empire. Its form has its basis in the earlier Selcuk mosques along with building elements found in Central and West Asia. Second, there is the 'double-dome' type which roughly falls within the fifteenth century and reflects mostly ancient regional forms with strong ties to Byzantine building traditions. The third is the 'single-dome' type which will also be referred to, here, as the 'empire-style'. This type continued to influence later mosque designs and this period has been commonly called the 'Ottoman classical period' (e.g., Kuran 1986, 1996). To clarify the idea behind the empire-style, most sixteenth-century single-domed mosques are considered imperial since they were commissioned by or for the Sultan, his relatives or even, for example, a Grand Vizir working under him. Mosques of this period and

thereafter, reinforced the wealth and greatness of the Empire, glorified their benefactor and his political aspirations and projected a religious unity. The prominent and prolific architect, Sinan, was credited with establishing the single-dome empire-style during the sixteenth century while serving the Sultans Süleyman, Selim and Murad III.

By using a chronological framework, we are able to see three distinct architectural typologies which fit roughly within 100 year segments of time. As the Ottoman empire grew, its building forms did not necessarily reflect a clear progression of scale, in fact, the buildings during these three centuries begin fairly large, then reduce in size and eventually become much larger. Most visible in the three-dimensional transformation of mosques during the fourteenth through sixteenth centuries is the shift from a horizontal to a vertical orientation. Spatially, the multi-cell type, built mostly in the fourteenth century, is oriented horizontally. It is followed by the fifteenth-century double-dome type which acts as a spatial transition between the horizontal and vertical. The vertical volume, then, is mostly explored in the single-dome empire-style mosques that follow. This ability to eventually build higher (and thus change the viewer's orientation) is partially a result of the construction capabilities with an added interest towards some innovation of form. It also seems to represent or symbolize the movement toward a more centralized and strong governing power (Necipoğlu 1985; Kuban 1985; Kuran 1987).

It is my belief that the transformation of form is not only reflected in the layout of fenestration, but that the want and need for more light led to structural and facade experimentation which resulted in lighter masonry structures. It is important to note that Ottoman religious architecture does not use light to directly produce a religious mystical symbolism as in a church (Kuban 1987), but a rich vocabulary of lighting systems were developed and are essential to reading and interpreting the meaning behind the spatial characteristics of the Ottoman mosque. Therefore, light is also brought in as a functional necessity, as a definer of space and volume, as a reinforcer of rhythmic procession, and as a multi-layered decorative patterning element.

Light is literally brought into the Ottoman mosque in two distinctive methods. During the day, natural light is brought inside, intentionally, from the exterior through various types of punched openings or fenestration. The four window opening types are the 'prayer window,' the 'layered masonry window,' the 'crown window' and the

oculus. In addition to natural daylight, hanging light fixtures of various scales and configurations were developed as the primary manufactured lighting for darker days, or night-time usage. The 'ring-lighting,' a versatile type of light fixture was able to light a large space with very little bulk. This fixture is described in more detail later and is most splendidly developed with the single-dome interiors. Because the mosque is used in times of darkness as well as in daylight, an interesting phenomenon takes place relating to the perception of light and the interior volumes. Each type of lighting or fenestration has its own visual prominence producing radically different results at different times. Solid-void or figure-ground patterning make up the interior (and exterior) façades.

Case Study I: The Great Mosque

Each mosque type will be discussed through a separate case-study. The first type of mosque in the transformation towards the single-dome empire-style is the multi-cell Eski or Ulu Cami, translated as 'old mosque' or 'great mosque.' These mosques were used as the Friday mosque, or the mosque that drew the common and high-ranking people to pray on the holiest day of the week. Good examples are the Bursa Ulu Cami completed in 1399, the Ulu Cami in Manisa, completed in 1366, and the Edirne Eski Cami, completed in 1414. These mosques usually have an entrance facade that is strong and massive yet less detailed than their Selcuk predecessors or the larger mosques that follow. Generally, this early Ottoman mosque type is made up of a series of cells, divided by columns, which are roofed collectively under a flat ceiling with an exposed beam structure, by a series of separate decorative domes of varying sizes and shapes or, by a combination of the two. The interiors seem to go on repeating forever as the spatial thrust of these mosques is purely horizontal.

Here, structural clarity and function literally serve the needs of Moslem prayer. Those praying, enter the mosque and stand in random places praying silently as the space fills up with people. To prepare for group prayer, they organize themselves and line up in parallel rows facing the qibla wall. As they are led through prayer recitation and movement, they bend at the waist, kneel on the floor and bow their heads to it—up and down, up and down, in unison. This type of human organization and ritualistic dance-like movement appears to directly reinforce the architectural layout and organization of the great mosques.

Light is brought into the mosque in a functional yet seemingly unorganized method. There is no real geometrical pattern on the interior facades to speak of; but, as exemplified in the Manisa Ulu Cami, there can be a strong figure-ground relationship. In Manisa, it is important to note that there is a courtyard before entering the sanctuary, and light is brought inside through windows placed up high on the entry wall which serves as the division and portal between the exterior and interior. While only incidental at the interior, this window placement allows for a more unified reading of the facade facing the entry court. There are few window punctures along the qibla wall as a result of the mosque having been built into the side of a hill. Yet, a so-called pattern of indentations on this wall begin to suggest a substitute figure-ground fenestration-like arrangement. In addition, this early mosque has a small dome centered in front of the mihrab; yet it is without an oculus opening to the sky. The manufactured or supplemental light used in this and other great mosques generally comes from individual hanging light fixtures that are relatively small modern chandeliers and are centered within each cell. In the case of the Manisa Ulu Cami, there are two light fixtures on axis with the mihrab niche, which appear to compete since they are stylistically different.

In a sense, the lack of a strict or complex interior pattern in these mosques allows for a reading of a series of distinct spaces, whose presence de-emphasizes the whole. This is the case with the Ulu Cami in Bursa. The fenestration is spare and the windows seem to be small and out of scale with the large and expansive walls. The most prominent element of this mosque is experienced upon entry. A glazed dome allows for a flood of natural light over an ablutions fountain below. Yet, this dome is not in the center of the mosque but it acts as the visual pivot as one is always aware of the penetration of this natural light from anywhere within the large cellular space. Again, there are also separate light fixtures set within the center of the cells delicately illuminating the zones in between the grid of support columns (see Figure 9.1).

I question why light is less carefully manipulated in the older structures. The multi-cell structures were certainly not expressions of the most daring masonry technology though there was experimentation and substantial variations within the type. I would not describe these mosques as graceful but there is a heavy sculptural beauty to them. Indeed, the double-dome mosques that followed differed substantially from the multi-cell. They begin to touch upon the evolution of form that culminated in the 1600's.

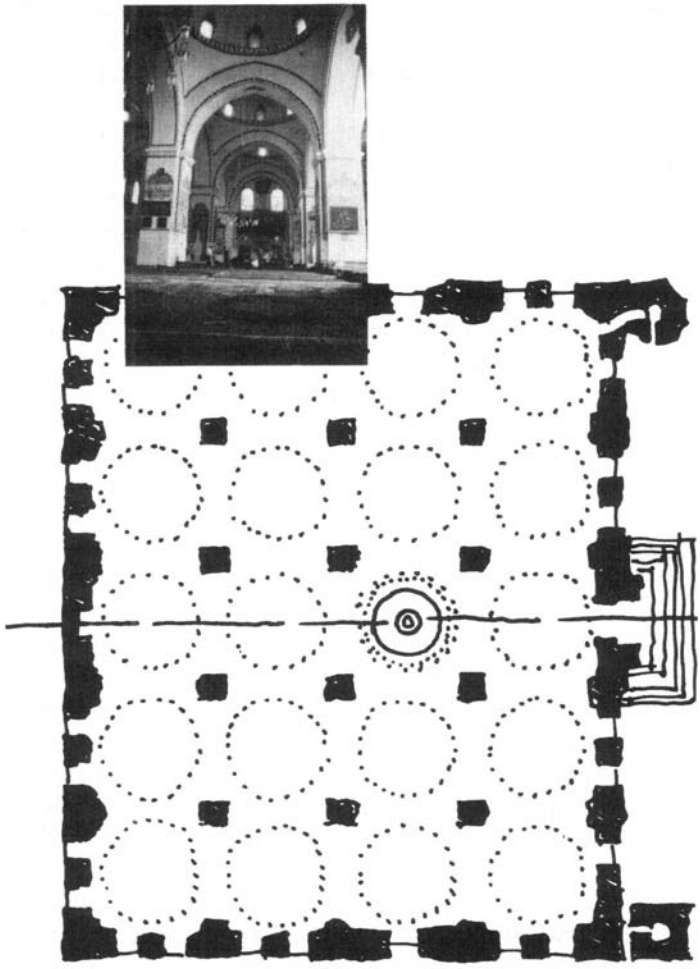

Figure 9.1. Interior photograph and floor plan sketch of Ulu Cami and dome location in Bursa.

Case Study II: Readings of the 'Double-Dome'

Building scale, formal layout and lighting technique details changed radically in the fifteenth century. An influential precedent for the double-dome mosque was most likely the Byzantine church since there were many surviving as the Ottomans took over control of the land (in fact, the Ottomans kept many of these churches and renovated them into mosques). The Kariye Mosque (Church of St. Savior in

Chora), still standing in Istanbul, shows an example of Byzantine aggregation of detailed domed forms and intricate brick and stonework some of which looks to have found its way into this later time period of building.

These double-dome mosques were used differently than the multi-cell great mosques. Some refer to them as *zawiye* mosques, or those that have separate side and upper level rooms used for other functions than prayer. It is also said that some of these mosques housed itinerant Moslem mystical sects (dervish) and that they acted as multi-functional local or regional houses of worship (Goodwin 1971; Necipoğlu 1985) instead of acting only as the main prayer gatherers as the great mosques did.

One of the most outstanding double-dome mosques is found in Bursa, the first capital of the Empire. The Sultan, Celebi Mehmet Han, set about having his mosque built in 1414. Called the Yesil Cami, it is placed facing a courtyard yet plans for a five bay domed portico were never carried out because of the Sultan's death in 1421, so essentially only the construction of details was finished by 1424. Though the building stands 'incomplete,' the facade is all the more readable and analyzable.

Procession is emphasized more formally in the double-dome type. The ornate masonry work and unusual fenestration gives a clue that this mosque had multiple functions. From the exterior, light appears to be let into different spaces and rooms before one even reaches the first domed space. A transition is made from the exterior world to the interior with the use of a dimly lit passageway. In this mosque, a sleeping and receiving quarters with royal loge rooms are located above the passageway for the Sultan to have used during his travels on caravan. As in all Ottoman mosques, the main entrance of the Yegil Cami is aligned on axis with the mihrab niche. The emphasis on this horizontal path, in architectural terms, is significant.

Though there are great similarities of plan type and form in the double-dome mosque, there are many variations in terms of the detail. Domes differ in scale and in the type of fenestration providing natural light. In the Yesil Cami, the first dome emits a ray of light from the oculus and is crowned by four windows at the base of the dome. This arrangement does not point to any one special place; it tells us only that this is the space with the ablutions fountain below, preceding the main sanctuary. The second dome over this sanctuary has been lit with eight crown windows which when combined with the typically raised platform spanning the entire space under the second dome, provides a different volumetric feeling as compared with the first. In addition,

the space under the second dome is perceived differently because of the two prayer windows in the qibla wall and one on each adjacent wall all set close to the floor. After acknowledging and experiencing the two separate vertical spaces beneath the domes, the eye is pulled horizontally towards the symbolic qibla wall. A simple yet effective pattern of fenestration begins to set off this important wall from the others particularly with the deep-set windows which serve to anchor the design. This trend will be defined in the mosques following.

The manufactured light fixtures here and in other double-dome mosques are placed in the center of the main domes in the form of a chandelier. In the broadest sense they are used as area lighting. Other lighting appears in modern strip fluorescents on the qibla wall and at the exterior entrances whose placement works with and against the fenestration pattern. This sort of unsophisticated yet largely unobtrusive use of manufactured fixtures is also seen in the earlier multi-cell type. Though the scale of the double-dome mosques is not large, most of the double-dome mosques are relatively dark inside even during the day as a result of the limited fenestration and insufficient hanging fixtures.

There are other ways of viewing and comprehending the double-dome mosques. The placement of fenestration and other decorative forms of punctuation reveal the possibility of discovering sacred meanings and correlations between the walls within a structure. By studying the geometric and proportional divisions of interior facade-work in the 14th- and 15th-Centuries, figure-ground readings are perceivable when comparing the same facades in daylight and times of darkness (see Fig. 2).

Good examples of decorative patterning are seen on the royal loge facade of the Yegil Cami opposite a related qibla wall. The dynamic relationship posed between the two is more apparent when daylight is not present. Another special interior relationship exists with reading the qibla wall of the Uç Serefeli Cami, built in 1447, in Edirne. Also more easily perceived in times of darkness, this wall possesses a geometrical quality not unlike military talisman shirts and the spatial qualities depicted in Turkish miniature art of the 15th-Century. A third example of wall patterning exists in some of the earlier Ulu or Eski type mosques. In the Ulu Cami at Bursa, the massive columns have graphic inscriptions from the Koran which compete with the fenestration pattern, but when comparing with the Eski Cami at Edirne, the painted walls tend towards a somewhat looser composition of oversized Koranic and Sultanic calligraphy sending literal messages that also enliven the space. In a sense, the decoration is so large and

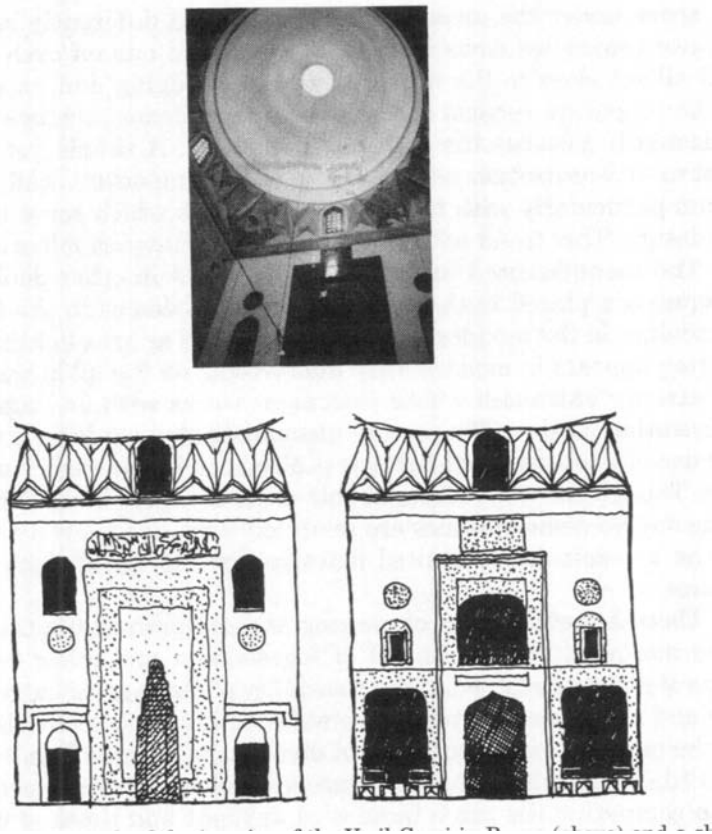

Figure 9.2. Photgraph of the interior of the Yesil Cami in Bursa (above) and a sketch of the decorative patterning on the royal loge facade opposite a related *qibla* wall (below).

powerful it tends to obscure and then de-emphasize the reality of the massive walls and their openings. All of these examples of decoration and fenestration find their basis in the development of Islamic geometric patterning which came to be in the absence of human representation—a specification of the teachings in the Koran. In this analysis, interior facades must have evolved to be seen and understood as a 'layer' of not only aesthetic but sacred meaning. This link to a possible sacred geometry is subtle and enhances the building. Later, in the sixteenth century, the development of large dome-making becomes synonymous with the inclusion of Iznik ceramic tiles which take the place of the earlier geometric patterns and create new dynamics with the more plentiful and sophisticated fenestration.

Case Study III: Reaching Toward the Haghia Sophia: The 'Empire-Style'

Double-dome zawiye structures are basically discontinued by the beginning of the sixteenth century as the dervish sects decrease and the Empire becomes more unified (Necipoğlu 1985). To proclaim the imperial power of the Sultans, the architectural expression of the single-dome empire-style strove to equal and surpass the vast and striking 6th-Century Byzantine monument, the Haghia Sophia or Church of Divine Wisdom. Dedicated by Emperor Justinian of Constantinople in 537 AD, it has survived dome collapses and earthquakes. It was renovated into a mosque shortly after Mehmet conquered the city in 1453 and in 1935, more than a decade after the collapse of the Ottoman Empire and the beginning of the Turkish republic, it was converted into a secular museum. It stands today in Istanbul as a monument still revered for the wonder of its age, scale, beauty and quality of light. In a sense, it has been rivaled, but never equaled.

So, in reaching towards the Haghia Sophia, the single-dome mosque starts to develop a lighter masonry structure that allows for growth in size and more luminosity. The Uç Qerefeli Cami begins to express some of these changes. Built in Edirne, in 1447, it is seen by historians (Goodwin 1971; Kuban 1985) as the mosque that bridged the earlier designs with the later—from the multi-cell to the empire-style.

Having visited the Uç Serefeli Cami in the rain, in the light of day and the darkness of the evening, it is among this author's favorites because of its indifference to the rules of proportion and its lack of slender elegance. Enter through the exterior courtyard from the side street and continue into the inner sanctuary of the mosque. The feeling of leaving one world and going towards another is profoundly experienced. Sometimes one is completely alone and at other times there may be groups of school children using the mosque as an interior playground. One is confronted with an expansive space under the central dome that immediately forces the user and viewer to try to comprehend the weight of the building. Perhaps clumsy, perhaps daring, the disregard for the external world is at work here. At the same time, one is very aware of the thin veil of light hanging above, while facing the mihrab. It seems that just the right amount of light is produced by this minimal fixture which is some twelve feet above the floor—approximately one-quarter of the distance to the top of the dome. Instead of a group of concentric flat horizontal circles mimicking the dome, there are concentric rectangles filling the space. The center is filled with an

obviously modern chandelier of a large scale which destroys the subtle beauty of the rectangles. To enjoy the 'square' lighting system one must try to understand it in architectural terms. This concentration on the center continues to be emphasized in later mosques and here, the long rectangular interior is echoed and therefore explained by the lighting while complimenting the dome above and surrounding deep-set prayer windows.

The Uç Serefeli is most remarkably a nighttime space when an opposite life for this weighty mosque structure comes alive. Fantastic shadows produced by the manufactured light are thrown onto the thick muqarnas, the stalactite-like decoration found at the base of the dome and on the arches below (as well as in other wall niches). The massive and imposing feeling of this single-dome mosque recalls the plan and form of the Manisa multi-cell mosque (Goodwin 1971) and some of the weightiness yet openness of the fourteenth-century mosques in Bursa and the Sokollu Mehmet Paga Cami in Istanbul.

The Sokollu Mehmet Paga Cami is a small but significant mosque in Istanbul situated not far from the Haghia Sofia. The design was conceived by the most well-known architect and prolific builder during the Ottoman Empire. Sinan's career spanned from 1538 to his death in 1588; and, this mosque is an interesting example of his later work. It is suggested by Dogan Kuban (1985) that Sinan experimented and adapted the plan of the Uç Serefeli Cami and when comparing the plans of these two mosques. This appears to be true. In this design, Sinan's plan is essentially a hexagon inscribed in a square, while the Uç Serefeli Cami is a hexagon inscribed in a rectangle. Though in terms of structure, mass and light the two are very different. In plan, Sinan worked carefully with geometry and proportion, and he utilized light to accentuate his three-dimensional form while continuing his exploration of the (dome) circle-in-the-square or hexagon or octagon plan forms. Using the hexagon and six arches as a dome support, he provided a more perforated and splayed-open interior than those of his even larger square plans (Snyder 1992).

Built in 1571–72 for Esmahan Sultan, the daughter of Selim II and the wife of the Grand Vezir, Sokollu Mehmet Pasa, Sinan was able to use the site's steep hill to his advantage. The strict axis between the entrance and the mihrab is adhered to as exemplified in the earlier mosques. Upon entering the mosque's domain from the street, one is confronted with the first shift of outside lightness into darkness. One travels through a gate and up a flight of covered stairs which allows a glimpse of the ablutions fountain above. At the top, one is doubly aware of the brightness of being outside again while also being within

the mosque's exterior rectangular courtyard enclosed by a medrese or Koran school. Passing the fountain and crossing to and then through the domed portico into the mosque, one's eyes adjust to the final interior space. The theory, that the culmination of the Ottoman mosque form is predicated on the verticality of the unifying central dome, is realized here. Immediately, the compressed volume of this highly sophisticated interior forces the viewer's eyes to be drawn to the termination of the axis—the glistening Iznik-tiled qibla wall opposite the entrance.

The compressed nature of the hexagonal space under the dome, allows for close inspection of the lighting elements. Following this ornate wall from bottom to top, one is aware that light is emitted through 'punctures' in the wall and ceiling region, engulfing the viewer. Typical Ottoman fenestration techniques of various shapes and sizes are used in a harmonious way. The primary walls in the design are set within the tall arches that support the dome above with the aid of pendentives. Structurally, the walls act as infill only (not load bearing) and therefore allow for a freely designed fenestration. The side walls outside of the hexagonal area are comprised of two-story galleries and employ a different structure but utilize similar fenestration techniques to remain consistent with the rest of the mosque (see Figure 9.3).

The mosque's bottom tier utilizes the typical deep-set prayer window approximately sixteen inches above the floor on all sides of the mosque throwing soft reflected and direct light onto the floor or prayer surface. This window type emphasizes the thickness of the masonry structure at the base. The layered-masonry window type is found in the mid-section set within the walls and semi-domes under the arches which encompass the main space beneath the central dome. Here, a series of different sized and shaped windows are actually constructed with two layers of glazing. One may find this construction in the mid-section of many mosques but the view of this construction method, is at times obscured, or less aesthetically pleasing. In the Sokollu Mehmet Pasa, the walls adjacent to the qibla wall have excellent examples of this type of construction. Varied decorative stained glass windows face the interior with an airspace of approximately eight inches separating them from an exterior 'screen' comprised of pieces of thick round glass, approximately six inches in diameter and set in place with mortar. The view from within allows for us to see the layers clearly through the more decorative colored glass and adds a further dimension of pattern. The light from the mid-section combines with the rest of the fenestration and produces a defracted and muted colorful glow. Light is admitted differently through the base of the main

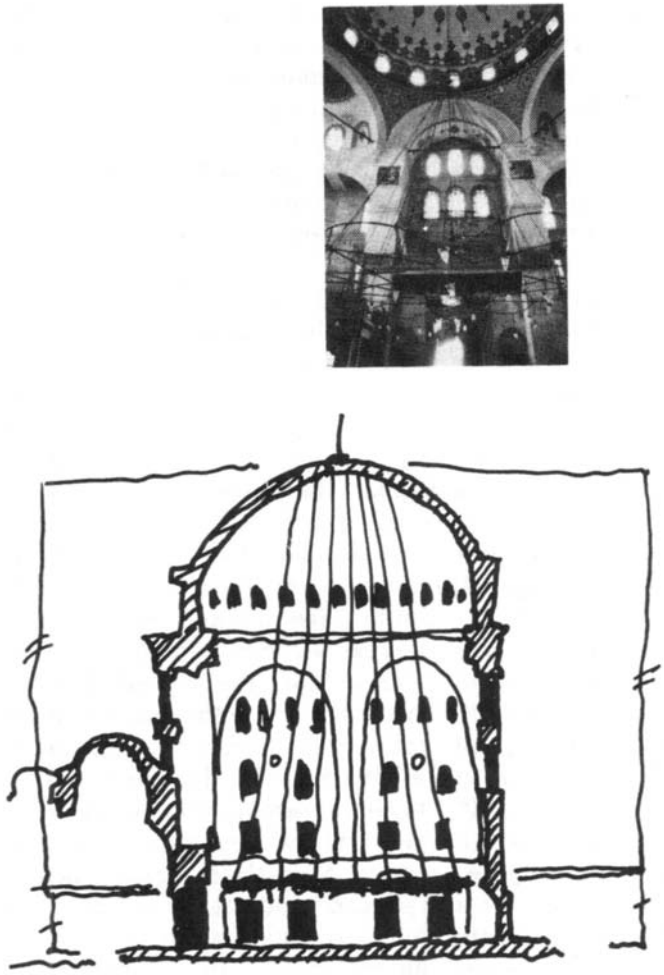

Figure 9.3. The interior of Uç Serefeli Cami in Istanbul with a sketch of the interior architectural design.

central dome than in the mid-section as these smaller crown windows, which are also made of two layers of glass, are arranged in a circle and are designed with an uncolored yet divided geometric pattern. Their high, unobstructed placement brings light directly into the dome where the brightness is reflected, or captured and redistributed.

The general sense of light, as in most of the empire-style mosques, is that of even-ness, equality and balance. The light seems to reinforce

the equality of man within his religious world, while the dome high above may represent the heavens and greatness of Allah over man. As stated earlier, there are other ways of perceiving interiors with the addition and use of manufactured light.

The method of today's manufactured illumination is through the use of electrical technology, The decline of the oil lamp was hastened by the concept of progress and the efficiency of the brighter light bulb. It replaced the need for the man who lowered and filled each glass cup with oil, lit them and then raised them during the day and evening. In making this change, the gentle flicker has been replaced by a small punch of light much brighter than the earlier designed intention. Many of the oil lamp fixtures described are original but have been retrofitted with bulky wiring systems to include broadcast speakers as well as light bulbs. Several mosques have also added incongruous electrical chandeliers of various shapes and sizes, and fluorescent tube lighting now known to be the most economical choice. In questioning clerics and other people using the mosques, they accept rather than question the electrification, and they are quite proud of their modern abilities. But, these additions change the perception and purity of the internal volumes and layered spaces.

It is my belief that the manufactured lighting of a mosque is intentionally designed to produce a multi-layered reading within the structure. In a sense, the additional light aids the functional needs of prayer, as well as providing an emphasis on a horizontal space within the vertically-oriented mosque. It is and was necessary to provide extra light at the floor level for prayer during the dawn, dusk or night hours as well as for use during darker days. In the Sokollu Mehmet Paga Cami, this layer of now electrified incandescent lighting or ring-lighting, gently yet clearly, cuts through the vertical space under the dome. Constructed of iron and glass, essentially round and flower petal in form, and hung on great chains from the dome above, this fixture emphasizes the size and shape of the dome while retaining its own independent appearance.

Other larger single-dome mosques have special fixtures such as the large single-tier fixture seen in the Süleymaniye Cami in Istanbul (1557), and the three-tiered lamp fixture in the Selimiye Cami in Edirne (1575). Though these fixtures are present all the time, when they are electrified in times of darkness the interior space is illuminated and defined more dramatically. A prominent shift of spatial usage comes from sensing two stacked vertical spaces divided by the thin plane of horizontal light, rather than the single perceived volume between the floor and the dome experienced when the fixture is not

illuminated (figure 9.3). The division of the space into two vanes and is roughly a ratio of one-quarter to three-quarters or sometimes one-fifth to four-fifths. When a mosque is filled with people for prayer, the bottom tier is emphasized especially when the fixture is illuminated. The horizontal plane of the light fixture becomes a veil-like transparent ceiling above the participants' heads. As mentioned in the discussions about positive and negative window patterns, the natural light and manufactured lighting elements work independently and as an ensemble to form a richer, more provocative and delineated architectonic space.

CONCLUSION

The legacy of the empire-style mosque and the resurgence of religion in modern-day Turkey is evident in the number of new mosques being built throughout the country. These new mosques seem to be a kind of cookie-cutter design owing to the modern building industry of cast-in-place concrete with masonry infill—in fact, they come complete with pre-cast domes, mini-domes, mihrabs and decorative screens. Lighting is assumed as a requirement but is treated simply and as a functional byproduct. These structures lack a sensitivity towards façade elements, proportion and harmony. Far from the grandeur once evoked during the Empire, they simply attempt to continue the visual unity of the traditional Ottoman past and current-day rise of Islam rather than embark on a new architectural representation of our present time, as other designers strove to do during the many periods of the Ottoman Empire, and thereafter. Will these 'new-old' Turkish designs universally succeed as a place of respect both in social usage and in town planning as the original Ottoman kulliyes, or mosque complexes, continue to do?

The concept of designing for a new era as seen during the Modern Movement and International Style in Europe and America influenced secular and religious architecture in different areas of the Middle East from approximately the 1920's through the 1960's. Today, there are architects working throughout the Moslem world who are designing new forms while respecting traditional beliefs. And, some are allowing light to guide their designs.

It is possible to formulate archaeological and architectural correlations between building structure and the use of light as more than a resulting component of a design. And, with the advantage of a recent Ottoman and still persistent Moslem culture, we can ascertain, infer

and even observe the cultural effects that aided in the designs of these structures. Is there not another transformation of form that could take place that would capture Islam in Turkey (or elsewhere) while embodying new and continuing meanings and symbolism? In this changing culture, are the real and ethereal meanings of the past now lost?

ACKNOWLEDGMENTS

I would like to acknowledge the William Kinne Fellowship and the Graham Foundation for the Fine Arts for early support of this research. In addition, I would like to thank Dr. Samuel Paley for his willingness to read interdisciplinarily.

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PROSPECTS | IV

The two concluding essays invite a renewed consideration of the potential of an archaeology of the Ottoman Empire. As mentioned in the introduction, the impetus for archaeological investigation of the Ottoman period owes a great debt to two articles published in 1989. Neil A. Silberman presented a vision for the archaeology of the recent past in Israel/Palestine as well as raising a series of research issues with his essay 'Tobacco Pipes, Cotton Prices, and Progress' in *Between Past and Present: Archaeology, Ideology, and Nationalism in the Modern Middle East.* In the following chapter, Silberman puts forward further challenges for Middle Eastern Archaeology to include sultans, merchants, and minorities in the study of Ottoman Empire and to conceptualize, even confront, the notion of modernity itself. The goal is a socially significant archaeology, significant not just to North American scholars, but to the people of the region. Silberman emphasizes the meaning of archaeology to the peoples in the successor states of the Ottoman Empire and of the need to fully include their ancestors in global history. Silberman underscores that, for the eastern Mediterranean, confrontations with colonialism, imperialism, and ethnic conflicts are essential for the archaeology of the Ottoman Empire. Archaeologists should address the very pressing issues that dominate current social life in the region.

Philip L. Kohl's 'The Material Culture of the Modern Era in the Ancient Orient: Suggestions for Future Work" posed questions for archaeological research in the greater Middle East. Some of those suggestions, such as locating the impact of colonialism on the shaping of urban areas, still need to be taken up. Connecting those concerns with his recent investigations into the intersection of nationalism and archaeology, Kohl concludes this volume with even more insights into the archaeology of the modern era. He highlights the themes and future challenges for a Historical Archaeology of Southeast Europe and the Middle East and illuminates the paradoxes for studying ethnicity and ethnic identity with archaeology. The people of the region have a series of understandings of how they are; the intersection of archaeology with those local understandings will remain a challenge for archaeologists, particularly those committed to exposing elements of

the Ottoman Empire. Archaeological remains are discussed throughout the volume in terms of global production and distribution; the impact of this understanding on local histones and national identities has yet to be evaluated.

Both concluding essays, by scholars instrumental in conceptualizing questions for an archaeology of the modern period in the Middle East, are invitations to further the studies in this volume and the task of building an archaeology of the Ottoman Empire. This volume only starts to break ground for an archaeology of the Ottoman Empire. Facing the challenges posed by Silberman and Kohl remains at hand.

10

Sultans, Merchants, and Minorities

The Challenge of Historical Archaeology in the Modern Middle East

Neil Asher Silberman

The fact that a group of historians and archaeologists would gather in upstate New York in the spring of 1996 for a conference devoted entirely to the study of the material remains of the Ottoman Empire might suggest—at least to the optimists among us—that an important new era in the history of Historical Archaeology has begun. As I reflect on that conference and on the papers published in this volume, I look forward to a time when studies of the material culture of sultans, caravan merchants, dervishes, kabbalists, and the mosaic of religious communities of the Middle East and Mediterranean might be as routine at the annual meetings of the Society for Historical Archaeology as reports about American colonial forts, plantations, and factory towns. It's not that I'm hoping for the discipline's mere geographic expansion—though that would surely not be a bad thing in itself (as forcefully advocated in Orser 1996). It is rather that I firmly believe that the intellectual integration of the study of the post-medieval material remains of both the 'old' world and the 'new' world could fundamentally challenge and redirect Historical Archaeology's quest to understand colonialism, capitalism, and the genesis of modern life.

These words, I know, may sound like so much politically-correct megalomania, especially since the projects discussed at the

NEIL ASHER SILBERMAN • Ename Center for Public Archaeology, Beaucarnestraat 17, B–9700 Oudenaarde, Belgium.

A Historical Archaeology of the Ottoman Empire: Breaking New Ground, edited by Uzi Baram and Lynda Carroll. Kluwer Academic / Plenum Publishers, New York, 2000.

Binghamton conference were for the most part small and daringly entrepreneurial by the standards of the huge, massively-funded expeditions that are still all too common in the archaeology of the Middle Eastern and Classical worlds. And the idealistic vision of a truly multicultural Historical Archaeology may seem a tad ironic in light of the conference's almost exclusive methodological concentration on consumption patterns, ethnic identity, agricultural technology, and housing utilization. These analytical categories and economic concepts are the bedrock of archaeological research agendas formulated by and within the rather homogeneous academic culture of Europe and the United States (Leone 1995; Patterson 1987).

Yet I would argue that there *is* a fundamental difference. Over the last ten years, I've watched as the components of a new archaeological discipline began to appear in scattered Middle Eastern research projects and salvage operations, here and there, in the shadows and in the aftermath of the great expeditions that strip-mined rich sites for biblical and classical antiquities. The raw materials were the scraps of material culture unearthed almost by chance in the course of large scale excavations or modern development projects: the sugar cones and molasses bottles of Venetian and Ottoman Cyprus (von Wartburg 1983); the hundreds of clay pipe bowls from the upper levels of Corinth and the Kerameikos district of Athens (Robinson 1983, 1985); the village architecture of Jordan (Khammash 1986) and of northern Yemen (Niewöhner-Eberhard 1985); the remains of Palestinian villages abandoned since 1948 (Khalidi 1992); and the design and physical layout of late nineteenth-century Zionist settlements in Ottoman Palestine (Ben-Artzi 1988). These were all fragments of a larger picture that seemed to *me*—at least—to provide a deeper understanding of the process I then innocently considered 'modernization' in the Mediterranean and Middle East.

Of course, the public interest in post-medieval remains was and still is quite superficial in most countries of the region. Restoration projects devoted to remains of the Ottoman period were usually meant to do little more than consolidate crumbling (if exotic looking) structures for reuse in the tourist trade. In most cases, hard currency, funneled through various international aid agencies, has been used to fund a variety of Cultural-Resource-Management-type projects, motivated primarily by economic development or dutiful historical commemoration. Yet there was one project I had the opportunity to observe in the mid-1980s that made a conscious attempt to connect the study of material remains with an evolving, modern political and cultural reality.

In 1982 or 1983, a small expedition from Bir Zeit University on the West Bank began to excavate some outlying houses in the Palestinian village of Ta'annek—a village located on the slopes of a huge Bronze and Iron Age mound (Ziadeh 1987 and this volume). That site, the biblical Tel Taanach, is well known in the archaeological literature, but the reports of the German and American expeditions there revealed almost nothing of the post-biblical history of the site (as seen in the bibliographic references in Glock [1997]). It was almost as if the lives and culture of the modern villagers (who incidentally served as the excavation laborers) were utterly inconsequential to *anyone's* history.

In digging down through the ruins-through the squatter occupation of 1948 refugees—through the first evidence of the 19th-century economic transformation of Palestine—to the earlier eras of Ottoman administration of the country, the director of the expedition, Professor Albert Glock, a longtime expatriate American scholar who had founded the Department of Archaeology at Bir Zeit University, sensed that North American Historical Archaeology could provide his Palestinian students with some important conceptual tools. Even if Stan South, Jim Deetz, and Mark Leone had no interest in, or perhaps even knowledge of, sultans, caravan merchants, or Middle Eastern minorities, Glock recognized that the study of the material remains of the last few centuries could reveal that the modern lives and struggles of both Israelis and Palestinians had perhaps more to do with 18th- and 19th-century material transformations than with any ancient conquest of biblical kings.

In time, Glock and his Palestinian students met with like-minded Israelis to explore the real archaeology of the Arab-Israeli conflict. But that was all before the violence and counter-violence of the Palestinian Intifada and Glock's still unsolved murder. Historical Archaeology, carried out against the grain in highly charged political contexts, can indeed be a business that is taken very seriously.

* * *

What I want to stress in the next few pages is that from my perspective as a historian of archaeology—rather than a digger—there is a very specific historical and political atmosphere in the Middle East that mitigates against the success of Historical Archaeology. And it's an element that Historical Archaeology's would-be practitioners can ignore only at their own risk. Historical Archaeology in much of the region is not, I insist, merely a matter of collecting information about subjects and periods that have long been neglected; it is a challenge to the accepted boundaries of archaeology itself. For in most of

the countries of the region where otherwise strict antiquities laws decree that material remains later than 1600 or 1700 are more than removable garbage, the very act of Historical Archaeology is immediately confronted with vast, ongoing archaeological destruction, coupled with the arrogant dismissal of the importance of these later remains by both biblical and classical archaeologists (Silberman 1991).

There is a coherent and dangerous ideology that validates both the destruction and the arrogance. Let's call it the 'Golden Age' myth. One telling example of material culture should be enough to tell the story: the sculptured relief above the entrance of the Oriental Institute of the University of Chicago, carved in the 1920s, in which the justification for western archaeological in the Middle East—then and now—is made clear (as pointed out by Larsen 1990). On the right—and eastern—side, is an Egyptian priest standing beside a sacred lion, surrounded by the iconic rendering of sphinx, pyramids, obelisks, and assorted Hittite, Assyrian, Mesopotamian, and Persian kings. He is handing a scroll of wisdom westward to a white American male draped with what appears to be a towel, standing next to a buffalo, surrounded by a Greek philosopher, Roman emperor, armored crusader, and, of course, a modern archaeologist. Behind them is a different set of icons: the Parthenon, the Cathedral of Notre Dame, and the soaring tower of the Nebraska State Capitol.

Needless to say, there are no women in this picture, nor is there a Jew or a Muslim (despite the Crusader), or even any symbolic indication that the right side and the left side of the picture, divided by time, are also divided by thousands of miles of geographical space. This is an image in which the modern nations of the West are the true inheritors of Ancient Middle Eastern civilization (Silberman 1995). The modern peoples of the region, standing quietly in the background, have apparently been left out of the will. The only way they can apparently gain a share of the inheritance was to learn archaeology from western scholars, at places like the Oriental Institute. And what are the contents of the inheritance? They are the material evidence of the things most prized in modern western civilization: urban life, technology, centralized administration, institutionalized religion, and military supremacy.

What makes this self-validating reading of Middle Eastern history so pernicious is that when nation-states arose in the region after World War II, the 'Golden Age' myth was easily adaptable to nationalistic ends (Silberman 1995a, 1997). In each nation, archaeological sites containing early evidence of city planning, temples, archives, or impressive fortifications were selected for intensive investigation and

romantically linked to the nation's present across an assumed period of civilizational, political, or religious neglect. Through this symbolic connection, the modern nation-state was often seen as a divinely preordained culmination of a long historical epic. And the fact that the monuments of its history were discovered by 'descendants' whose leaders were reasserting the nation's independence after centuries or even millennia of political subjugation, was a poetic correspondence that was as political as it was literary. And as I have noted elsewhere, the identification and restoration of 'golden ages' and the selection of 'chosen peoples' implicitly discredit the history of people who are not chosen and require that the darkness of ideologically mandated periods of desolation be heightened by contrast to the brightness of today's dawn (Silberman 1995b). For the nations of the Middle East—including the modern Republic of Turkey—the age of the Ottoman Empire was seen as the Age of Desolation (cf. Kardulias 1994:49). And it was only by emphasizing the deadness—not life and complexity—of that long period that the archaeological restoration of its earlier, biblical and classical antiquities always seemed so miraculous.

* * *

Of course Ottoman history, which roughly occupies this period of ideological mandated desolation from the sixteenth to the early twentieth centuries, was filled with ups and downs, heroes and villains, nobility, innovation, and backwardness—in short, a history that is fully as vital as that of the ancient Middle East or the modern West. Unfortunately, that reality does not mesh with the romantic 'Golden Age' myth, which mandates that a remote, glorious past and patriotic present be directly juxtaposed. Nor does it mesh with the stubborn insistence of North American Historical Archaeologists to see the non-American, non-European world—in the absence of direct contact with America through immigration or imported trade goods—as almost entirely irrelevant.

Take the familiar 'Virginia Adventure,' given its latest, magisterial retelling by no less a figure in mainstream North American Historical Archaeology than Ivor Noël Hume (1994). The long involvement of one of the main characters, Captain John Smith, in the early seventeenth-century anti-Ottoman wars in the Balkans is dismissed in a single, breezy paragraph, in which Noël Hume half-facetiously describes Smith's 'amazing feats of valor,' his capture and brief service as a slave to a wealthy Ottoman noblewoman, and his eventual murder of her brother-in-law, an Ottoman pasha, and successful escape (1994:126–127).

Noël Hume and most other scholars who have described Smith's experiences and adventures before his turn toward America have—with the notable exception of Philip Barbour (1964, 1986)—treated these stories as little more than colorful Arabian Nights fairy tales. In fact, Noël Hume makes the break between the Ottoman world and western civilization clear and complete. He concludes his colorful preface to Smith's real career with the words: 'After several other adventures of no relevance to the Virginia story, we find him back in England in the winter of 1604–1605. . .' (1994:127).

But were the worlds of the Ottoman Empire and the European Age of Discovery really so separate? In tracing the material culture of the Ottoman Empire and its immediate neighbors, is it not possible to see a civilization against which the nations of western Christendom reacted and of which they were constantly aware? (as suggested by Greenblatt [1991]). The possibility of Crusades eastward ended with the Ottoman's conquest of Constantinople in 1453. For Christopher Columbus and Hernando De Soto, for John Smith and his Spanish, Portuguese, Dutch, French, and Austrian contemporaries, the Ottoman Empire was not a weak but a powerful and threatening Other. The bloody and brutal European colonization of the New World can be seen—at least in its early stages—as a conscious response and reaction to the vast, multi-cultural empire ruled by Suleiman the Law-giver and his successors—stretching from the fertile plains of Hungary (where John Smith taken prisoner in battle), through the mountainous highlands of the Balkans, the Caucasus, and Asia Minor with their mines and overland trade routes, to the ancient market cities of Syria, Mesopotamia, Palestine, through the fertile Nile Valley, all the way south toward the Horn of Africa, to the remote land of Yemen on the southwest Arabian coast.

What makes the study of Mediterranean and Middle Eastern historical archaeology so intriguing is the possibility that it might offer some concepts and historical formation utterly outside the experience or even analytical categories of the European colonial and, later, capitalist world. For the Ottoman Empire seems have been based on the maintenance of cultural diversity as the fulcrum of imperial coherence and profit—not in the tendencies toward rigid hierarchization and centralization one sees in the West (Lewis 1995; Brummet 1994). And maybe part of the reason we are today so utterly confused by the surging nationalisms and religious passions of the Middle East, the Caucasus, and the Balkans is because we have been trained as archaeologists—both New World and Old

World—to disregard the history, function, and vitality of Middle Eastern religions and cultures as inconsequential or irrelevant to our own experience.

It's true enough that the empire of Suleiman the Lawgiver was eventually to become the so-called 'Sick Man of Europe,' humiliated and dominated by the flood of manufactured goods and capitalist ideologies (Kasaba 1988). Indeed, some of the excavations and surveys in this volume all offer glimpses of that process, though it was not one in which European capitalism and empire could ever completely impose their will (as documented historically in Quataert [1983]). That's why I believe it's so important that those who would undertake Historical Archaeology in the Middle East and the Mediterranean not merely fill out the picture conceived in North America, merely reporting on what the rest of the world looked like when America was being conquered and settled or alternatively show how the relentless penetration of mercantile and then industrial capitalism finally conquered the Old World as well as the New. Professor Al Glock at Bir Zeit University had a vision of using Historical Archaeology not only as an intellectual exercise, but an active tool of identity and political consciousness for both Westerners and Middle Easterners as they interact politically, economically, and culturally *today.*

The archaeological and historical path to the present need not follow only one set of tracks. It can also be traced along a road, or perhaps network of roads, peopled by sultans, merchants, and minorities to places like modern Israel, Palestine, Greece Turkey, Bosnia, Bulgaria, Chechnya, Somalia, Iraq, and the Persian Gulf. The material and non-material legacy to be found today in each of these places includes traditions, economic structures, and communal identities that challenge the nature of modern capitalism even as they assimilate themselves to it.

There is a larger picture to be comprehended. And it is the challenge and great opportunity of Historical Archaeology in the Mediterranean and Middle East to grasp fully the global dimensions and material transformations of 'modernity.' For archaeologists to continue to ignore the modern populations of the Middle East and the Mediterranean—or to declare them utterly irrelevant to the main trajectory of western civilization—is to allow themselves to become unwitting accomplices to the very same processes of imperial expansion and ethnic differentiation that, as historians and scholars of past societies, they presume dispassionately to describe.

ACKNOWLEDGMENTS

I want to offer my thanks to Uzi Baram and Lynda Carroll for inviting me to participate in the Binghamton Conference, and to express my admiration for their administrative skill, patience, good humor, and boundless energy in making this pioneering enterprise a reality,

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11

Diverse Approaches to the Ottoman Past

Toward a Globally Conceived, Regionally Specific Historical Archaeology

Philip L. Kohl

The chapters in this volume abundantly illustrate the need and value of an archaeology of the Ottoman Empire that is conceived as a regional manifestation of a global historical archaeology, a discipline concerned with the emergence and establishment of mercantile and industrial capitalism throughout the world (cf. Orser 1996:11). The form this historical archaeology takes will reflect the complex political history of the Middle East over the past 500 years and more, and the editors persuasively argue for an archaeology of the Ottoman polity, the material consequences of the extension of Ottoman imperial rule. Obviously, this expansionary process took place at different times and affected different regions differentially. Thus, for example, Kuniholm's compendium of dendrochronologically dated 'Ottoman' monuments abundantly shows the presence of first 'Turkish' and then Ottoman remains in Anatolia several hundred years prior to the capture of Constantinople in 1453; the eleventh-century Bekdemir mosque, so valuable for dating purposes, extends the temporal span of concern nearly an additional half millennium or uncomfortably approximate with the largely ignored 'Late Islamic' period (1200–1900 CE) in Israel, a lumping category which Baram rightly criticizes. When does one begin the archaeology of this empire and how should one subdivide its extended temporal expanse?

PHILIP L. KOHL • Department of Anthropology, Wellesley College, Wellesley, Massachusetts 02481.

A Historical Archaeology of the Ottoman Empire: Breaking New Ground, edited by Uzi Baram and Lynda Carroll. Kluwer Academic / Plenum Publishers, New York, 2000.

Space too is implicated in this question, and clearly one has to refer to the historical record of Ottoman expansions and retractions in specific areas from at least the fourteenth century onward to distinguish between period and polity. In any event, the imperial process is certainly underway before Columbus, and the problem then becomes one of tracing the effects of the Great Discoveries and the emergence of the European-led 'modern world system' within the domains of the Ottoman Empire from the sixteenth century onward. The articles by Brumfield and LaBianca illustrate an additional difficulty: the possibility that the advent of Ottoman rule will register little effect in a given region (e.g., in the surveyed Vrokastro area of Crete which apparently did not witness the establishment of the *çiftlik* landworking system) or only be observed indirectly and negatively by the absence of significant settlements in specific regions (e.g., the massive abandonment of settlements in Greater Syria during the 17th and 18th centuries as discussed by Ziadeh-Seely or the chronological gap in the occupational history of Tell Hesban and the Ottoman-dated occupation of caves in the same area of Jordan, a pattern ingeniously interpreted by LaBianca to represent a strategy of local resistance to avoid the rapacious Ottoman tax collectors). Without the aid of texts, will the advent of Ottoman rule be self-evident? These studies suggest otherwise.

This volume clearly illustrates the range of possible approaches to uncovering the Ottoman past. Documentation takes place in the rural countryside, in scattered coffeehouses, and in urban workshops. Local ceramics, Chinese porcelains, ubiquitous tobacco pipes, shipwrecks, and elite public architecture are all legitimate subjects of study and potentially complement one another. Thus, the Chinese export porcelain found on the Sadana Island shipwreck in the Red Sea finds parallels in the Topkapi Saray Museum collection in Istanbul and clearly is relevant for the archaeology of ceramic production and consumption within Anatolia as discussed by Carroll. Likewise, the recovered foodstuffs on this shipwreck originated in areas both within and beyond the borders of the Ottoman empire; their recovery ultimately needs to be complemented by archaeological studies of the areas in which they were produced or, in other words, for more food-systems approaches in archaeology as advocated by LaBianca. The study of elite public urban architecture and the role of light as a structuring principle in major mosques, as presented by Kuniholm and Snyder, are balanced by the studies of Brumfield and LaBianca on rural settlement patterns and the distinctive, temporarily inhabited *metochi,* and water mills and olive presses in the countryside.

As Baram suggests, objects of large-scale consumption, such as ceramics or the common but often overlooked tobacco pipes, may reveal patterns of entanglement in the emergent global economy and the establishment of 'habits of modernity'. Both Carroll and Baram correctly argue for an archaeology focussed on the consumption of such commodities, an archaeology which shows how non-elites chose the newly available, habit-forming 'pleasures' of coffee and tobacco and, in so doing, became entangled in processes which were occurring on a global scale. An archaeology focused on changing patterns of consumption should not take place, however, at the expense of the concomitant analyses of the production and distribution of these commodities, a point recognized by Baram when he emphasizes that the archaeological record contains evidence for the documentation of the three inseparably related activities of production, distribution, and consumption. Moreover, as Carroll intimates, there are at least two inherent dangers in too narrowly focusing on consumption: (1) the problem of anachronistically ascribing consumer choice (a choice itself exaggerated in the ideologies and marketing practices of contemporary consumer capitalism) to the peoples taking up and adopting these newly discovered pleasures or addictions; and (2) consumption is not just culturally situated or reflective of groups, such as non-elite peasants, actively determining their own fate. Rather, as Mintz (1985) has so convincingly demonstrated for the continuous take-off of sugar production and consumption, 'consumer' choices are inextricably related to changing work practices and consciously manipulated by producers who are interested in creating dependent markets for the objects they produce.

An Ottoman archaeology should focus both on what is being produced for subsistence and local systems of production and what for the emergent global economy. If during the so-called Late Islamic period (1200–1900 CE) Palestine produced sugar, soap, cotton, barley, and oranges for inter-regional exchange (cf. Baram, this volume, p. 146), then there should be an archaeological or material culture reflection of the relative rise and demise of the production of these commodites. Similarly, for their distribution and exchange. How are older road systems interrupted and how do the placement and maintenance of caravanserais break down with the increasing reliance on globally shipped commodities and the associated encroachment of European powers and the emergent global economy? Clearly, there are many new paths to explore in the newly self-conscious and reflexive field of Ottoman archaeology.

One such path is both necessary and fraught with potential danger: the need—*when possible i.e., certain*—to inscribe this past in

ethnic terms. Ziadeh-Seely explicitly mentions the basic assumption of the 'direct historical approach' in archaeology; viz., that the ethnographically or historically documented culture resembles or does not significantly differ from its immediate archaeological predecessor and argues eloquently that future research at Ti'innik (and presumably other multi-period sites in the area) will systematically and gradually move back in time to cover the entire cultural history of the site, (Ziadeh-Seely, this volume, p. 81) noting continuities and detecting changes as one proceeds backwards from the recent historically known into earlier periods. Whether one begins the Ottoman clock in the 13th or in the 16th century CE, one remains safely within a period in which written documents complement the archaeological record. Such historical evidence can inform us—at times unequivocally—of the ethnic groups creating the monuments and sites of archaeological investigation. Such information should not be somehow overlooked or ignored. Why? Because ethnicity matters, as any student of the modern Middle East must realize. The point is not to put contemporary ethnic labels on archaeological cultures nor romanticize ethnic groups as primordial unchanging entities—an approach which may engender its own set of problems, but rather to use the additionally available historical information to reconstruct the past more fully and more credibly. In doing so, one possible desirable outcome, in my opinion, is the political empowerment and incorporation of peoples whose histories in many cases continue to be effaced or denied for contemporary political reasons.

There is a paradox here. Ethnic reconstructions of the *prehistoric* past are not only uncertain and always problematic, but also may constitute a hazardous and politically dangerous exercise (Kohl 1998:239–241). Different groups who claim to have occupied an area 'since time immemorial' may run up against other groups dipping into the ethnically ambiguous prehistoric record to assert their rights to the same parcel of real estate, and such claims and counter-claims in turn may aggravate tensions among these neighboring groups and even stoke the fires of ethnic conflicts. Consequently, *contra* some theorists (e.g., Jones 1997), archaeologists should eschew nearly all such prehistoric ethnic identifications or treat them with extreme circumspection by emphasizing their necessarily provisional and tentative character.

The archaeologist working safely within recent historic periods faces a markedly different obligation: the need to recognize—*where the evidence permits*—the prior existence of contemporary peoples whose very reality may be denied or minimized by contemporary states

erroneously claiming or aspiring to ethnic homogeneity. This recognition necessarily confronts some delicate and even potentially nasty and volatile political issues. An archaeologist working on the later historical levels of a site in eastern Anatolia should identify obviously Christian remains as Armenian (when inscriptions confirm this identification or when they cannot plausibly be related to other Christian groups, such as Georgians and Assyrians, who also have lived in certain parts of the region) and not gloss them over as 'Byzantine' or later 'Ottoman period' remains. The reality of Armenians who lived in eastern Anatolia throughout the Ottoman period must simply be acknowledged and not implicitly denied.

The archaeology of the Ottoman Empire is clearly the archaeology of a multi-ethnic polity, and this fact should be celebrated by directly addressing it. Returning to eastern Anatolia for a hypothetical example, a future archaeology focused on rural settlements in the area may detect many material markers of ethnic diversity, some of which might be plausibly identified as specific to a particular group. Utilizing the direct historical approach and working backwards in time, an archaeology of the Ottoman Empire could potentially distinguish Kurdish remains from those of other peoples and document their long, uninterrupted, if ever-changing, presence in the area.

It is easy to contemplate comparable examples throughout the ethnically diverse area once under imperial Ottoman sway. When are obviously Islamic Arab remains regionally specific enough to suggest some form of distinct cultural, if not proto-national, identity? An Ottoman archaeology in today's Israel is at some very important level an archaeology of Palestine and the Palestinians, an empowerment of the people who dominantly occupied the area in the recent historical past. How distinctive are their material remains and settlement patterns from those found in today's neighboring countries of Syria, Lebanon, or Jordan? The political geography of the modern Middle East was largely compiled after World War I and the collapse of the Ottoman state. Will a future Ottoman archaeology confirm and naturalize the borders of the nations that emerged at this time or will it reveal the arbitrary nature of the divisions which were then erected and which separated groups whose previous identity or close similarity is reflected in their material remains? It can be predicted that an Ottoman archaeology which proceeds thoroughly and exhausively will confirm the historical record and demonstrate the continuous existence of Jews, Christians, and Muslims throughout the area. It also holds the potential for revealing new aspects of their co-existence and even

conceivably how inter-ethnic relations changed during the course of Ottoman rule.

The recent political history of the regions once controlled by the Ottomans has hardly been peaceful. In the Balkans and in regions of Transcaucasia which were under Ottoman rule until the early nineteenth century, historical monuments of other ethnic groups—mosques and churches, most notably—have been deliberately and systematically destroyed. A future Ottoman archaeology will have to determine what is still preserved and what has forever been lost as a result of these deplorable attacks on the cultural heritages of others. Silberman refers to the myth of the 'Golden Age'—the birth of civilization and Biblical times—which will continue to beset efforts at focusing on the historical archaeology of the Middle East. This problem is compounded by the converse myth which he also mentions: the Ottoman period is perceived by many peoples who were once its subjects as an Age of Desolation, a period of dissolution and decay in which local cultural developments were arrested. How real or fanciful is this perception? Here too is a knotty problem which a future Ottoman archaeology must address. As we have seen, some areas witness little change and others are abandoned with the advent of Ottoman rule. Still others obviously flourished under the protection and patronage of the Ottoman state. An Ottoman archaeology holds the potential for objectively assessing the effects of its imperial rule.

Such an assessment will encounter and, in some cases, have to correct for this myth of the Age of Desolation. Herzfeld (1991), for example, has documented how the inhabitants of Rethemnos in western Crete confront their Ottoman past: essentially, they disparage it, while glorifying their ancient Cretan, Greek/Byzantine, and even Venetian past. Nevertheless, their Old Town, including its Turkish monuments and architectural features, are restored as part of their heritage in order, of course, to attract tourists. As Herzfeld (1991:57) notes, hostility with Turkey and even rehabilitation of the long dead and gone Venetians fits the rhetoric of modern Greek nationalism. Yet their desire to preserve the Old Town and promote tourism necessarily means the conservation and preservation of Turkish remains. The problem is not only in the existence (and attractiveness) of the Turkish buildings, but also in the inability of the local residents at times to distinguish the Turkish from the Venetian remains:

> Certainly the perception that some of the antiquities are of 'Turkish' date does not increase people's respect for them. Official historiography falls

> victim to decades of its own derision of anything Turkish and is hard put to defend its position, *given the absence of a uniformly clear break in domestic architecture between the Venetian and Turkish periods* (italics added, Herzfeld 1991:226).

If it is conceded that the material remains of the Ottoman past which can be positively identified in terms of their ethnicity should be, then the converse is also true: the archaeologist should refrain from making such identifications when they are not certain. Rather, the very ethnic ambiguity of these remains should be emphasized and celebrated. That is, the numerous peoples of the Ottoman Empire willingly or forcibly came into contact or were connected at some level with each other as subjects of this domain; as a result, they necessarily borrowed from each other, and this mixture of customs, beliefs, and institutions clearly will be reflected in the hard material reality of the archaeological record. One important task of Ottoman archaeology will be to document this assimilation and borrowing of styles and technologies throughout the imperial realm. The task will not typically be to distinguish Turkish from non-Turkish remains, to note, for example, how churches were transformed into mosques, but rather to show how the constant mutual borrowings and sharings of material culture elements produced something both recognizably Ottoman and ethnically ambiguous.

The editors of this volume have explicitly and persuasively argued for an Ottoman archaeology which is self-consciously part of a global historical archaeology concerned with the rise and spread of capitalism and all that that process entailed. There is no reason to reiterate their compelling reasons for promoting such an approach. Ottoman monuments and traditional Turkish material culture have long and exhaustively been studied by art historians, folklorists, and ethnographers (e.g., Glassie 1993). Even archaeologists, whose primary interests have lain in earlier periods, have had to detail the materials found in the later levels of their sites; most certainly have not bulldozed them away. Even if understudied and undervalued, an Ottoman archaeology, the description and explanation of material remains dated to the Ottoman period, has long existed. Nevertheless this volume 'breaks new ground' by insisting on an historical archaeology of the Ottoman Empire that relates the remains found throughout that empire to materials produced, distributed, and consumed in other regional historical archaeologies spread across the globe. That is a new and worthy vision.

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Appendix A

Chronology for the Ottoman Empire

Some Key Dates in Ottoman History, 1260–1923

1260–1300	Formation of gazi principalities—Ottoman principality founded by Osman Gâzî
1326	Conquest of Bursa; Bursa becomes first Ottoman capital; accession of Orhan, son of Osman Gâzî
1352–1354	Conquest of Ankara and Thrace
1360–1389	Construction of Murad I Mosque in Bursa
1361	Conquest of Adrianople
1363–1365	Ottoman expansion into Bulgaria and Thrace
1368	Ottoman capital moved to Adrianople (Edirne)
1385	Conquest of Sofia
1389	Victory at Kossovo-Polje
1394–1413	Construction of Ulu Cami in Bursa
1400–1403	Timurid conquests in Anatolia
1402	Battle of Ankara between Beyazid and Timur; Beyazid I defeated
1403–1413	Civil war among Beyazid's sons for sultanate
1413	Mehmed I reconsolidates power in Ottoman Empire
1423–1430	Ottoman-Venetian war over Salonica
1453	Conquest of Constantinople by Mehmed II, Fatih (the Conqueror)
1459	Conquest of Serbia and the Morea
1461	Conquest of the empire of Trabzon
1468	Conquest of Karaman
1475	Conquest of Genoese colonies in the Crimea
1485–1491	War with Mamluks of Egypt
1497–1499	War with Poland
1499–1503	War with Venice
1516–1517	Selim conquers Syria and Egypt
1520	Kanuni Süleyman (Suleyman the Magnificent) becomes Sultan
1521	Conquest of Belgrade
1522	Conquest of Rhodes
1526	Battle of Mohacs
1529	Conquest of Buda, siege of Vienna

1534	Conquest of Tabriz and Baghdad
1537	War with Venice
1537–1540	Construction of walls around Jerusalem by Siileyman
1538	Seige of Diu in India
1539	Sinan's appointment as Master Architect
1548–1549	War against Persia, conquests in Georgia
1550–1556	Construction of Süleymaniye Mosque and Külliye in Istanbul
1555–1561	Construction of Rüstem Pasa Mosque in Istanbul
1565	Siege of Malta
1569	First Ottoman expedition against Russia
1569–1575	Construction of Selimiye Mosque in Edirne
1570	Tunis captured; fall of Nicosia
1570–1571	Conquest of Cyprus
1571	Ottoman defeat at the battle of Lepanto
1578–1590	War with Iran; annexation of Azerbaijan
1589	Janissary revolt in Istanbul (continued uprisings 1591–1592)
1593–1606	War with the Habsburgs
1596	Celali rebellions in Anatolia (Celalis suppressed in 1609)
1621	Invasion of Poland
1622	Assassination of Sultan Osman II
1630–1638	Ottoman Persian War
1631	Insurrections in Yemen, Egypt, and Lebanon
1633	Murad IV bans coffee, tobacco, and coffeehouses
1638	Ottomans recapture Baghdad
1683	Siege of Vienna
1699	Treaty of Karlowitz; withdrawal from Hungary, Dalmatia, and Croatia
1740	Zahir al-'Umar al-Zaydani in Acre, creates an alliance with 'Ali Bey of Egypt
1768–1774	Russo-Turkish War; shelling of Jaffa, Acre, Sidon
1776	Defeat of Zahir al-'Umar and his sons by Pasa Ahmed al-Jazzar
1798–1799	Napoleon conquers Egypt, races up the coast of Palestine, halted at Acre by Ahmed al-Jazzar and the British fleet under Sir Sydney Smith
1805	Muhammad 'Ali viceroy of Egypt
1818	Muhammad 'Ali defeats Wahhabi in Arabia
1821–1829	Greek War of Independence
1827	Battle of Navarino
1831	Muhammad 'Ali conquers Syria, Ibrahim Pasa ruler of Palestine
1834	Palestinian revolt against Ibrahim Pasa
1839	Start of the Tanzimat with the Hatt-i Sherif (Illustrious Rescript, also known as the Hatt-i Humayun) of Gulhane by Sultan Abdülmecid
1839	British open consulate in Jerusalem (Prussia follows in 1842, France and Sardinia in 1843, Austria in 1849, United States in 1856)

1853–1856	Crimean War
1854–1869	Opening of the Suez Canal
1856	Proclamation of Hatt-i Humayun, equal treatment of all creeds
1858	The Ottoman Land Code
1860	Massacres in Damascus
1860–1861	French intervention in Lebanon
1861–1865	American Civil War and the Cotton Boom in Palestine and Egypt
1864	Provincial Law/Law of the Vilayets enacted (part of the Tanzimat)
1867	Foreigners permitted to own land in Ottoman Empire
1876–1877	Constitution proclaimed for the Ottoman Empire, then revoked
1877–1878	Ottoman-Russian War
1878	British control Cyprus; Berlin Conference
1881	Establishment of the Public Debt Administration
1882	British in Egypt
1883–1914	Germans construct Baghdad and Hejaz railroads
1896–1897	War with Greece
1908	Young Turk Revolution; restoration of the Constitution of 1876
1911	Ottoman-Italian War
1912	First Balkan War
1913	Second Balkan War
1914	Ottoman Empire enters World War I
1920	French Mandate over Syria and Lebanon; British mandates over Iraq and Palestine
1923	Proclamation of the Republic of Turkey

Index

Note: Page numbers in *italics* refer to figures.

Aalto, A., 220
Acun, H., 106, 114, 123
Adosidis, K., 64
Afyon (Turkey), Cay, Yusuf bin Yakub Medresesi (Sultan Alaâddin Camii), 123–125, *124*
Afyon (Turkey), Demirtaspasazade Umur Bey Camii, 118–119
Afyon (Turkey), Emirdag, Amorium, 114
Afyon (Turkey), Sincali, Boyaliköy Medresesi, 128, *129, 130*
Afyon (Turkey), Ulu Cami, 123
Agricultural technology, in Crete, 46, *47, 48,* 60–69, 71; *see also* Food systems approach; Foodways, Ottoman
Agriculture
  in Crete, 34, 37–40, 41–46, 54–69
  defined, 205–206
Aksaray (Turkey), Çanli Kilise, coffin lid, 114–115
Aksaray (Turkey), Ihlara, Bezirhane ("oil factory"), 100
Aksehir (Turkey), Nasreddin Hoca Türbesi, 117–118
AkSehir (Turkey), Tas Medrese Camii, 126,126–127
Alaeddin Keykubad, sultan, 127
Alcohol, 144; *see also* Stimulants
Aletri (wooden plow.), 46
Altun, Ara, 222, 223
Anatolia
  ceramics recovered in, 35
  dendrochronology of, 35, 93–136
  non-elite consumption patterns in, 161–180
  Ottoman Empire established in, 8
  traditional mode of production in, 168
Ando, T., 220
Architecture, *see also Cami*
  dating of, 35
  of Ti'innik (Palestine), 84, 85
Arel, A., 104, 105
Arik, R., 127
Armatoles (Christian militiamen), 50
Artifacts: *see* Material culture
Asari (Crete), 54, 60
Asari (Crete), chapel of St. George, 54
Ayverdi, E. H., 95, 117, 122

Bakirci, Naci, 109
Balkans, Ottoman legacy in, 10
Baram, U., 17, 35, 169, 253, 255
Barbour, P., 248
Barley, in Crete, 42, 45, 46, 54
Beer, 144; *see also* Stimulants
Belluschi, Pietro, 220
Beysehir (Turkey), Kubadabad Sarayi, 127
Biblical archaeology, in Palestine (Israel), 10, 79, 81–82
Biblical past, conceptualization of, 5, 10
Bilecik (Turkey), Vezirhan (Köprülü Mehmet Pasa), 111, 111, *112*
Bioarchaeology, of Sadana Island shipwreck, 197–198
Black Sea oak, dendrochronology of, 99
Bolak, O. 222, 224
Bon, A., 116
Bone or ivory artifacts, from Sadana Island shipwreck, *196,* 197
Bosnia, Ottoman legacy in, 10
Braudel, F., 21
Brumfield, A., 34, 254
Buildings: see Architecture
Bulgarian ceramic wares, 175
Buondelmonti, Christophe, 61
Burckhardt, J. L., 83
Burdur (Turkey), Koca Oda, 110
Burdur (Turkey), Tas Oda, 113–114
Bursa (Turkey), I. Murat Hüdavendigâr Camii, 122

Bursa (Turkey), I. Yildirim Beyazit Darüssifasi, 120, 120–122, 121
Bursa (Turkey), Ulu Cami, 227, 228, 229, 231
Bursa (Turkey), Yesil Cami, *119*, 119–120, 122, 230–232, 232

Cami, see also Mosques
  archaeology of, 19
  critique of previous studies of, 222–224
  transformation of, 182–183, 219–240
  typology of, 225–226
Çanakkale (Turkey): ceramics from, 170, 173, 174
Çanakkale (Turkey), Cezayirli Hasan Pasa Köskü , *104,* 104–105, *105*
Çanakkale (Turkey), Kilid ul-Bahir Kalesi, 116–117
Capitalism
  archaeology of, 17
  penetration of, 166, 167, 207, 208–209
Carobs, in Crete, 54
Carpenter, R., 116
Carroll, L., 17, 35, 254, 255
Çaykara (Turkey), Dernek, Güney Mahallesi Camii, 96
Çaykara (Turkey), Dernek, Kondu Mahallesi Merkez Camii, porch, 96
Celebi, E., 22
Celebi, Kâtip: *Cihannuma,* 111
Celebi Mehmet Han, sultan, 230
Ceramics, *see also* Chinese export porcelains; Tobacco pipes, clay
  from Anatolia, 35, 166, 170–175
  Ottoman production and consumption patterns, 170–175
  from Sadana Island shipwreck, 185, 186, 188–189, 193, 193–195, 194
  from Shaarm el Sheikh shipwreck, 187, 188
  from Ti'innik (Palestine), 83, 86–87
Chinese export porcelains
  in Anatolia, 171, 172, 173, 174, 176*n.* 1
  in Sadana Island shipwreck, 182, 185, 186, 188–193, *190, 191, 192,* 199, 200, 254
  in Topkapi Museum (Istanbul), 188, 189, 191, 254
Chronology, *see also* Dating; Dendrochronology
  of Ottoman clay tobacco pipes, 153
  of Ottoman Empire, 34–35, 261–263
  of Ottoman mosques, 225–226
Çiftlik (estate) system, in Crete, 38, 39, 40, 45–46, 70–72
Cigarettes, 152
Cizye (head tax), in Crete, 39–40, 49
Classical past, conceptualization of, 5
Coffee, *see also* Stimulants
  cargo from Sadana Islands shipwreck, 186
  consumption of, 144, 145, 151, 154, 166, 255
  importation of, 199
Coffee cups
  from Anatolia, 175
  from Israel, 147, 154
Coinage, 208
Columbus, Christopher, 248
Commodities, *see also* Consumption patterns; Material culture
  defined, 144–145
Consumerism, development of, 165
Consumption patterns, 35; *see also* Material culture
  of banned stimulants, 143, 144–145, 148, 151, 154–155, 156
  among non-elite groups in Anatolia, 161–180
  study of, 164–166
Copper wares and utensils, from Sadana Island shipwreck, 185, 186, 196–197, 197
Corinth (Greece), Acrocorinth, unnamed mosque, 116
Çorum (Turkey), Eski Yapar, Hüseyin Dede Türbesi, 106–107
Cramer, J., 101
Crete
  agricultural technology in, 46, *47, 48,* 60–69, 71
  agriculture in, 34, 37–40, 41–46, 54–69
  destruction of Ottoman legacy in, 258
  independence of, 51
  land-owning patterns in, 38–39, 55, 70–72
  Ottoman censuses of, 49–50, 51
  Ottoman conquest and control of, 37, 40

Crete (*cont.*)
population of, 51
rebellion during Greek War of Independence, 51
rural settlement of, 34, 37–40, 46–54, 55, 56–60
Cyprus, sugar production in, 145

Dacus fly, 55–56
Dafter mûfassal (tax records), 82–83, 84
Danisman, H. H. Günhan, 130, 131
d'Arvieux, Chevalier, 83
Dating
by dendrochronology, 35, 93–136, 253
by inscriptions, 95
of Ti'innik(Palestine), 86
Dede, H., 106–107
Deetz, J., 245
Dendrochronology, 35, 93–136, 253
De Soto, Hernando, 248
Didymoteichon (Greece), I. Mehmet Camii (Vayazit Dzami), 117
Diffusionism, 142
Dionysios, Metropolitan of Crete, 53
Direct historical approach, 81, 256
Doumani, B., 141, 155
Drugs: *see* Hashish; Opium; Stimulants
Durukan, A., 106, 114, 123
Dutch, introduction of tobacco by, 149

Eakins, J. K., 24
East India Company, Chinese export porcelains purchased by, 188, 189
Ecosystem theory, 212
Edirne (Turkey), Eski Cami, 227, 231
Edirne (Turkey), Selimiye Cami, 237
Edirne (Turkey), Uc Serefeli Cami, 231, 233–234
Egypt
historical archaeology in, 17
Ottoman conquest of, 144
Elites
and agriculture in Crete, 42
Islamic, 19
Ottoman, 8
Entanglement, of material culture, 147–148, 154–155, 165, 255
Erken, S., 123
Erzen, J., 222, 223
Erzurum (Turkey), Çifte Minareli Medrese, 109

Eski Yapar site (Turkey), 106
Esmahan Sultan, 234
Ethnic identity
in Crete, 51
diversity of, 6–8, 248, 257
stasis and change in, 139
Ethnoarchaeology
of Cretan agriculture, 55–69
critique of, 22–23
defined, 21–23, 81, 181
of Ti'innik (Palestine), 80–81, 84
Ethnographic analogy, 22
Ethnographic present, limitations of, 21
Eurocentrism, 15

Fabrika (olive mill), 64–66, 65
Fakhr-al-Din, 140
Faroqhi, *S.,* 15, 167–168
Feminist archaeology, 214
Foça (Turkey), Kaleburnu Castle, *102,* 102–104, 103
Food systems approach, 203, 204–206
Foodways, Ottoman, 20, 182, 203–217
Foster, N., 220
Friedman, J., 165

Gabriel, A., 121, 122, 123
Giyasettin Keyhüsrev I, sultan, 132
Glass bottles, from Sadana Island shipwreck, 185, 195–196, 196
Glassie, H., 23, 175
Globalization, 22, 144–145, 154–155, 156
Glock, A. E., 16, 79, 141, 245, 249
"Golden Age" myth, 246–247, 258
Goodwin, G., 121, 220, 222–223
Goodwin, J., 138
Grain cultivation, in Crete, 42–43, 44–45, 54–69, 71
Grain mills, in Crete, 60–64, 71
Greece, Republic of: Ottoman legacy in, 23
Greek War of Independence, 51
Gregory, T., 116

Hamilton, A., 199
Haraç (agricultural) tax, in Crete, 40, 46, 62, 67
Hashish, 144; *see also* Stimulants
Hellenism, 5
Hemingway, E, 9
Hero of Alexandria, *Mechanics*, 67

Herzfeld, M., 258
Historical archaeology, vii–viii, 4, 16–18, 33, 141, 162–164, 181, 243–251, 253–260
Hitier, M., 45–46
Hoca, N., 117–118
Hodgson, M. G. S., 142
Holl, S., 220
Homeland territories, fluidity of, 210
Honor, solidarity fostered by, 211
Hospitality, reciprocity of, 210–211
Hourani, A., 142
Housing: *see* Architecture
Human-environment interactions, 206, 212–213
Hurgada shipwreck, 188, 200

Ideology, imperial Ottoman, 221
Iliatiko (Leatic) wines, 69
Incense, from Sadana Island shipwreck, 186
Incorporation into world systems, critique of, 14, 148, 166, 167
Indigenous resistance, means of, 209–212
Inscriptions
  dating by, 95
  from Sadana Island shipwreck, 186, 196–197, 197, 199
Islam, conversion to, 39–40
Islamic archaeology, 18–20
Islamic court records (*sijillat al-mahkama al-shar'iyya*), for Palestine, 83
Israel, State of, *see also* Palestine
  clay tobacco pipes recovered in, 35, 146, 147, 149–154, *150*
  historical archaeology in, 17
  Ottoman legacy in, 9–10, 138–142
Istanbul (Turkey), Altunizade Köskü (villa), 100–101
Istanbul (Turkey), Haghia Sophia, 233
Istanbul (Turkey), Karaköy Vapur Iskelesi, 99–100
Istanbul (Turkey), Kariye Mosque (Chora), 230
Istanbul (Turkey), Sokollu Mehmet Pasa Cami, 234–237, 236
Istanbul (Turkey), Suleymaniye Cami, 237
Istanbul (Turkey), Topkapi Museum, Chinese export porcelains, 188, 189, 191, 254
İznik (Turkey): ceramics from, 170, 171–175, 232
İznik (Turkey), Çandarli Kara Ali Türbesi, 109–110
İznik (Turkey), near Elbeyli, [so-called] Mara Camii, 114
İznik (Turkey), Seyh Kutbeddin Mosque and Türbe, 105–106
İzzeddine Keykâvus I, sultan, 127

Jabal Nablus, production in, 141
Jaffa oranges, 145
Jerusalem, Ottoman legacy in, 10, 140
Jiddah (Jeddah) shipwreck, 188
Johnson, M., 17
Jordan
  Ottoman foodways in, 20, 182, 203-217
  sugar production in, 145
Justinian, Holy Roman emperor, 233

Kahn, L., 220
Kalo Chorio (Kako Chorio, Crete)
  defense of, 50, 51
  olive crushers and presses in, 64
  population of, 51–52
  settlement of, 48, 51
  watermills at, 61, 62, 63, 71
Kapudan-i Deryâ Ya'kub Bey, 117
Kardulias, P. N., 23
Kasaba, R., 13
Kastamonu (Turkey), Kasabaköy, Mahmut Bey Camii, 122
Kavousanida hamlet (Crete), 60
Keyder, Ç., 164, 207
Kiel, M., 113
Kilburn, R., 188
Kiliçarslan II, Ottoman sultan, 132–133
Kizilcahamam (Turkey), Hidirlar Camii, 110
Kohl, P. L., 241
Konya (Turkey), Ince Minareli Medrese, 123, 125–126
Konya (Turkey), Karatay Medresesi, 101, 123
Konya (Turkey), Mevlana Müsei, Semahane, 108–109
Konya (Turkey), Sahipata Mescidi (Tahir ile Zühre Mescidi), 127
Konya (Turkey), Selçuklu Sarayi, *132*, 132–133, *133*

Kuban, D. 220, 222, 223, 234
Kuniholm, P. I., 35, 253, 254
Kuran, A., 95, 109, 122, 123, 127, 128, 220, 222, 223
Kütahya (Turkey), ceramics from, 170, 172, 173, 174
Kutbeddin, Mehmed Muhyiddin, 106

LaBianca, Ø. S., 20, 254
Land-owning systems, *see also* Settlement patterns
  in Crete, 38–39, 55, 70–72
  Ottoman, 38
Land reform, Ottoman, 85, 87–88*n*.3
Land use patterns: *see* Settlement patterns
Lapp, P., 79
Late Islamic period, 139, 253, 255
Lechevalier, travel accounts of, 105
Le Corbusier (Charles-Édouard Jeanneret), 220
Legoreta, Ricardo, 220
Leone, M., 24, 245
Levy, T. E., 147
Lewis, B., 137, 138, 154
Light, architectural use of, 220–221, 225–238
Lightfoot, Christopher, 101, 114
Lincoln, A., 17
Linguistic identity, diversity of, 6–8
Liquor, 144; *see also* Stimulants

Madaba Plains Project, 182, 207
Magy (French consul, Crete), 45
Mamluk Empire, 139, 140, 144
Manisa (Turkey), Ulu Cami, 227, 228, 234
Marxist theory, 214
Material culture, *see also* Consumption patterns
  entanglement of, 147–148, 154–155, 156, 165, 255
  globalization of, 144–145
  of modernity, 142–144
Mazra'a (farm), in Palestine, 84
Mehmet I, Ottoman sultan, 117
Mehmet 11, Ottoman sultan: tomb of a daughter of, 118
Melos, millstones from, 64
Meriç, A.., 118
Meseleroi (Castel Messelerus, Crete)
  defense of, 50–51
  olive crushers and presses in, 64, 65, 66
  population of, 49, 51–52
  watermills at, 61
Metochia (seasonal residences), 53, 55, 56–60, 57, 70–71
Michalis of Prina, 50
Middle East: *see* Egypt; Israel, State of; Jordan; Palestine; Syria
Middle Eastern studies, 20–21
Millets (religious communities), 6
Mintz, S., 255
Modernity
  and globalization, 144–145, 154–155, 163–164
  material culture of, 142–144
  and modernization, 244, 249
Monasteries, in Crete, 52–54
Monastiraki (Crete)
  mills at, 61, *62*
  olive crushers and presses in, 63, 64, 65, 66
Morosini (Venetian commander), 70
Mosques, *see also Cami* modern, 238
  Boliimlu, Mithatpasa Camii, 97
  double-domed, 225, 226, 229–232
  multi-celled, 225, 226, 227–228
  Sugeldi Köyü Camii, 97
  Uzungöl Filak Mahallesi Camii, 97
Multiresource economy, 210
Murad I, Ottoman sultan, 122
Murad IV, Ottoman sultan, 85

Napoleon, 140
Nationalism
  in archaeological research, 139, 241
  and formation of national identities, 7–8
Necipoğlu, G., 222, 224
Niebuhr, C., 188, 200
Noël Hume, I., 247–248
Nouvel, J., 220

Ohrid, Sv. Sofija, 110–111
Olive crushers and presses, in Crete, *63*, 64–69, *65, 66, 67,* 71
Olive oil production, in Crete, 42, 43–44, 54, 64–69, 71
Olivier, G. A., 45

Önder, M., 127
Opium, 144; *see also* Stimulants
Oral history, of Palestine, 84
Ordu (Turkey), Ünye, Ikizce, Eski Cami , *115*, 115–116, *116*
Orientalism, 25, 33, 139, 144, 154
Otto-Dorn, K., 106, 109, 127
Ottoman archaeology
  advocacy for, 4
  contexts for, 5–8, 245–246
  defined, 12–13
  in global contexts, 13–15
  ignorance of, 3–4, 9–10, 140, 143, 146
  purpose (goals) of, 11, 33, 213–215, 241, 255, 259
  types of, 15–25
  uncovering changes in Ottoman Empire through, 25
  unpopularity of, 5, 6
Ottoman Empire
  advoidance of, 5, 9
  chronology of, 34–35, 81, 261–263
  establishment of, 8
  ethnic and cultural diversity in, 6–8, 248, 257
  extent of, vii, 3, 6, 7, 166
  foodways in, 20, 182, 203–217
  government records of, 82–83, 84
  imperial food system in, 206–209
  incorporation of, 14, 148, 166, 167
  indigenous resistance to, 209–212
  legacy of, 8–11
  political economic geography of, 14, 257–258
  political economic history of, 14, 166–170
  stasis in, 25, 35, 137–138, 140, 143, 247, 249, 258
  unpopularity of, 5, 6
Ottoman period artifacts and sites, destruction of, 11, 82, 146, 258
Ötüken, S. Y., 106, 114, 123
Özosma, H., 131

Palestine, *see also* Israel, State of
  Islamic court records for, 83
  modern material culture in, 142–143
  Ottoman artifacts from, 145–147
  Ottoman legacy in, 9–10, 81, 138–142
  Ottoman tax records for, 81–82, 84
  traditional commodities of, 145
Palestinian archaeology, 79, 81–82, 145–147
Pasha, H. (Ottoman commander), 51
Pasha, M.(governor of Candia, Crete), 50
Paynter, R.,17
Peasantry, conception of, 169
Pekak, S., 106, 114, 123
Pekin, F., 122
Perantonis of Meseleroi, Captain, 51
Pest control, traditional, 55–56
Phaneromeni, monastery of the Virgin of (Crete), 52, 71
Philip 11, king of Spain, 113
Plant disease, defenses against, 55
Post-medieval archaeology, 4, 17, 241, 242
Pottery: *see* Ceramics
Primordialism, 8, 10, 139
Prina (Crete)
  defense of, 50
  olive crushers and presses in, 64, 65
  population of, 49, 51–52
  viticulture in, 68
  watermills at, 61–62
Pulak, C., 113

Qulal (clay water jars)
  from Sadana Island shipwreck, 188–189, *193*, 193–194, *194*
  from Shaarm el Sheikh shipwreck, 187, 188
Quran, condemnation of alcohol in, 19–20, 42, 144
Qusur (*qasr*, residential compounds), 207–208

Raban, A., 187, 188
Raki production, 69
Rast, W. E., 147
Raulin, V., 52
Red Sea trade, 187–188, 199
Religious identity, diversity of, 6–8
Republic of Turkey: *see* Turkey, Republic of
Residential flexibility, 210
Robinson, E., 83
Robinson, R., 86
Rodanthi (Cretan heroine), 52
Rothaus, R., 116

Saarinen, A., 220
Sadana Island (Egypt) shipwreck, 182, 185–202, 254
  location of, 185–186
  preservation of, 186
  and ship construction, 186, 198–199
Safavid dynasty, collapse of, 187
Sahibata, Vezier Fahreddin Ali, 125
Said, E. W., 25, 141
St. Johns, Simpson, 86
Samsun (Turkey), Bekdemir Camii, 97–99, *98*
Samsun (Turkey), Çarsamba, Mezarlik (Gökçeli) Camii, 130–132
Samsun (Turkey), Çarsamba, Yaycilar Camii, 128
Schilcher, L., 209
Selim, Ottoman sultan, 140
Sellin, E., 79
Settlement patterns, in rural Crete, 34, 37–40, 46–54, 55, 56–60
Sfakolaggada hamlet (Crete), 60
Sharm el Sheikh shipwreck, 187, 188, 200
Ship construction, 186, 198–199
Shipwrecks
  Hurgada, 188, 200
  Jiddah (Jeddah), 188, 200
  Sadana Island (Egypt), 182, 185–202
  Sharm el Sheikh, 187, 188, 200
  Yassiada (near Bodrum, Turkey), 113
Sijillat al-mahkama al-shar'iyya (Islamic court records), for Palestine, 83
Silberman, N. A., 17–18, 139, 241, 258
Sinan, 117, 222, 223, 224, 226, 234
Sinopoli, C., 12, 13
Sivas (Turkey), Sifaiye Medresesi, 127–128
Sivas (Turkey), Divrigi, Ulu Cami, Hünkâr Mahfili, 107, 107–108, 108
Sivas (Turkey), Gok Medrese, 101–102
Smith, Capt. John, 247–248
Smoking: *see* Tobacco; Tobacco pipes, clay
Snyder, A. B., 19, 254
Société de la Régie cointeressée des tabacs de l'empire ottoman (Régie), 152
South, S., 2
Soyturk, I., 114
Spices, from Sadana Island shipwreck, 185, 186
Spina Longa fortress (Crete), 50
Stimulants
  archaeological investigation of, 19–20, 149–154
  Ottoman ban on, 19–20, 42, 144
Stoianovich, T., 10
Stratton, A., 222, 224
Striker, C. L., 96
Structures: *see* Architecture
Subsistence: *see* Food systems approach
Subsistence agriculture, in Crete, 41–46, 54–69
Sugar, 145, 154, 255
Suleiyman (Süleyman) the Magnificent, 10, 137, 140, 181, 248, 249
Surahi (water bottle), 23
Sürmene (Turkey), Karacakaya Camii, 97
Syria
  abandonment of villages, 85
  indigenous resistance in, 209
  Ottoman conquest of, 140, 144

Tabak, F., 207
Tagkalakis, Ali Aga, 53
Tagkalakis, Hussein Aga, 53
Tanzimat, 167
Taxes, *see also Dafter mûfassal* (tax records)
  Cretan *cizye* (head tax), 39–40, 49
  Cretan *haraç* (agricultural tax), 40, 46, 62, 67
  on exported tobacco from Palestine, 151
  Ottoman tax records for Palestine, 81–82, 84
Tel el-Hesi, 24
Tell el-Umeiri, 216*n*.3
Tell Hesban, 211, 216*n*.3
Tell Jalul, 216*n*.3
Tell Taanach; 79, 245; *see also* Ti'innik
Temizer, R., 106
Tenant farming, in Crete, 40, 45–46
Territorial boundaries, fluid, 210
Thermoluminescence dating, 86
Thessaloniki (Greece), Frourio Vardari, 113
Thomas, N., 148
Ti'innik (Ta'annak, Palestine)
  dating of, 86
  ethnoarchaeology of, 80–81, 84
  excavations at, 34, 79, 84–85, 245

Ti'innik (Ta'annak, Palestine) (cont.)
location of, 85–86
map of, 80
Timar (fief) system, in Crete, 38
Tobacco, use of, 144, 145, 149–151, 152, 154, 165, 255; *see also* Stimulants
Tobacco pipes, clay
from Anatolia, 175
from Athens and Corinth, 155
from Israel, 35, 146, 147, 149–154, 150
from Istanbul, 155
from Kerameikos, 155
mass production of, 152
from Sadana Island shipwreck, 194, 195
Tokat (Turkey), Gök Medrese, 122–123
Tournefort, J. P. de, 69
Trabzon (Turkey), Boztepe, Ahi Evren Dede Camii, 96
Trabzon (Turkey), Ottoman mosques near, 96–97
Trade networks, 182, 187–188
Tradition, and non-elite consumption patterns, 169
Transjordan: *see* Jordan
Travel accounts, of Palestine, 83
Tree-ring dating: *see* Dendrochronology
Tribalism, 209–210
Trigger, B. G., 139
Trikala (Greece), Kursun Camii (Hg. Konstandinos), 117
Tristram, H. B., 83
Turkey, Republic of, *see also* Anatolia
ethnography of, 21
formation of, 8
national identity in, 164
Ottoman legacy of, 8–9
Turkocretans, conversion of, 39–40
Twain, Mark, 9
Tzamaki hamlet (Crete), 60

Ünsal, B., 121

Vakif (religious) property, in Crete, 39, 40
Vasiliki (Crete), olive crushers and presses in, 64, 65, 66
Veneto-Turkish war (1645-1669), 42, 43
Venice, eclipse of, 37
Vessels: *see* Ceramics
Viticulture, in Crete, 42, 54, 68, 69
Vrokastro site (Crete), 41
Vrokastro Survey Project (Crete), 41
cultivation studied in, 54–69
duration of, 73*n*.9
extent of, 48, 49
Vyromenou, monastery of the Virgin of (Crete), 52

Wallerstein, I., 13
Watermills, in Crete, 60–64, 71
Water sourcing, small-scale, 210
West Africa, tobacco use introduced from, 149
Westernization, 142, 164, 167
Wheat, in Crete, 46, 54
Wine, use of, 144; *see also* Stimulants
Wine production: *see* Viticulture
Wolf, E. R., 145
World systems theory
critique of, 14–15, 167–168
defined, 13–15, 166, 167, 214–215

Yalman, B., 114
Yassiada (near Bodrum, Turkey), shipwreck, 113
Yetkin, S. K., 95
Yildirim Beyazit I, Ottoman sultan, 120
Yugoslavia, Ottoman legacy in, 10

Zade, H. Ç., 106
Zahir al-'Umar, 140, 152
Zawiye mosques, 230
Ziadeh-Seely, G., 34, 254, 256